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ANNUAL REPORT 1993

# ONTARIO HYDRO ANNUAL REPORT 1993



Ontario Hydro is the largest electric utility in Canada and one of the largest in North America. Its customers include 309 municipal utilities serving more than 2,600,000 customers; 944,622 rural retail customers; and 104 large direct customers. The Ontario Hydro supply system includes 69 hydroelectric stations, eight fossil-fuelled stations, and five nuclear stations. Total system capacity is approximately 34,000 megawatts (MW), transmitted across a 135,000-kilometre transmission grid. Ontario Hydro was created in 1906 by provincial statute and operates today under the Power Corporation Act of Ontario.

Ontario Hydro is a self-sustaining corporation without share capital. Bonds and notes issued by Hydro are guaranteed by the Province of Ontario. The Corporation is governed by a Board of Directors consisting of up to 22 members. Board members and the Chairman, who

also serves as Chief Executive Officer of the Corporation, are appointed by the Lieutenant-Governor-in-Council. The President of the Corporation is appointed by the Board of Directors.

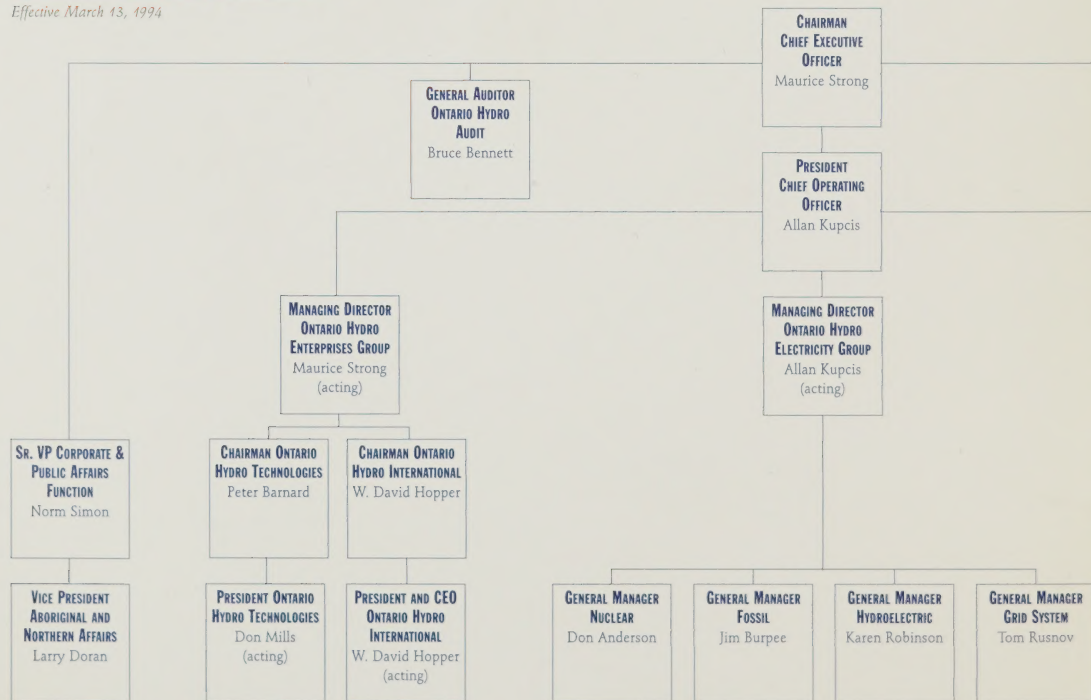
#### FINANCIAL HIGHLIGHTS

(millions of dollars)

	1993	1992
Revenue	8,363	7,768
Net income (loss)	(3,604)	312
Total assets	44,706	46,671
Cash used for investments in fixed assets	1,871	3,375

#### Ontario Hydro Organization

Effective March 13, 1994

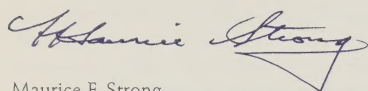


**LETTER TO THE MINISTER**

To the Honourable C. J. (Bud) Wildman, Minister of Environment and Energy

On behalf of the Board of Directors, I am pleased to submit to you Ontario Hydro's report of the financial position of the Corporation, with discussion and analysis of issues and initiatives for 1993 and beyond.

We want to thank your staff at the Ministry of Environment and Energy for their cooperation extended over the year.



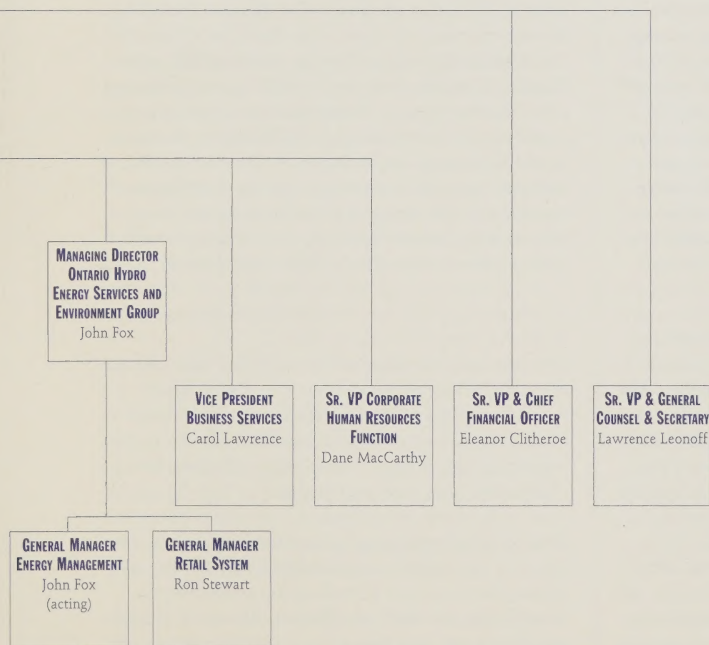
Maurice F. Strong  
Chairman and Chief Executive Officer

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Interview with the Chairman



"Ontario Hydro will help  
Ontario become the  
most energy-efficient and competitive  
economy in the world, and a leading  
example of sustainable development."

Maurice Strong  
Chairman & CEO

**Q: When you took the job as Chairman, Ontario Hydro was commonly referred to as "a corporation in crisis." One year later, can the same be said?**

The crisis didn't occur overnight, and it won't be cured overnight. But I think we've taken the right steps to put ourselves on track, thanks to the tremendous team of people we have around here. We've made more progress in the past year than many of us would have believed was possible. We've already achieved the cost reductions we originally thought would take three years. And we've exceeded our original staff-reduction targets—on a voluntary basis.

When I first came here, Hydro was under attack from every direction. There were tremendously negative complaints from the public and from our customers. We were the "fat cats," unwilling to change, entrenched in the good old days. That's gone. For the most part, we've begun the process of restoring not only Hydro's viability, but its credibility. It may still be too early to use the word "achievement." But "progress"? Definitely.

**Q: Is there a single accomplishment that stands out in 1993?**

I don't like to single out any one thing because all our strategies are linked, but I'm sure our customers would

point to the zero rate increase. This province has gone through the worst recession since the Great Depression. Hundreds of thousands of people have lost their jobs. There's uncertainty and human suffering on a scale we haven't seen for years. Electricity rates are an important factor in the economy. A significant rate increase would have meant further large job losses in Ontario, and, perhaps even more ominously, the curtailment of investments that create jobs. By freezing rates, we were able to preserve existing jobs and allow for the creation of new ones. That's an accomplishment.

**Q: What other important groundwork for the new Ontario Hydro was laid in 1993?**

One, we took immediate actions to reduce costs, including a \$24-billion reduction in our capital program. Secondly, we began the critical shaping of our corporation into a much more accountable and business-like organization, bringing Ontario Hydro closer to its customers, closer to its marketplace.

From a human perspective, there has been a steep cost. Many of our employees have left. Many others have undergone prolonged periods of uncertainty about their future, and that's debilitating. However, I think employees will now find greater work satisfaction at

Hydro—satisfaction that we are on the move, that the new Ontario Hydro is not just a piece of advertising fiction.

**Q: What changes are still to come?**

Change will be a permanent part of our culture, part of our methodology, our ethos. Ontario Hydro must learn to manage it, rather than react to it. That's where the benefits are for our customers. I hear a lot of complaints, yes, but I also hear a lot of excitement about the new possibilities that are opening up because of change in people's lives, in their careers.

**Q: In 1993 we saw a major commitment by Ontario Hydro to the principles of sustainable development, first with its mission statement, and then through the work of the task force on sustainable energy development. How important is sustainable energy development to Ontario Hydro's future?**

Of any effort this past year, the work of the sustainable development task force will have the single greatest impact on Hydro and its customers. It points the way to a future where our activities will integrate economic, environmental, and social concerns in a way that will significantly improve our capacity to serve our customers.

Energy efficiency is a good example. We've been promoting energy efficiency through our demand-management programs. Some people naturally ask why a utility ostensibly in the business of selling electricity would want to reduce demand when its revenues are declining. The reason is that if we don't help customers reduce demand, and if we don't reduce our own energy bills, we won't be competitive. Customers will choose not to deal with us. Jobs will be lost. Our economy will suffer more. Sustainable energy development is a crucial investment in the future.

**Q: What is the future of non-utility generators at Ontario Hydro?**

Non-utility generators are now an integral part of our supply system. Unfortunately, we've had to cut them back severely. We did it from necessity, not from any change of mind as to their importance as a source of electricity. In this time of surplus, we simply don't need the extra power. Three of our own major facilities have been shut down in the meantime.

**Q: During the restructuring of Ontario Hydro, one of three main companies formed was Ontario Hydro**

**Enterprises. What is its function?**

Ontario Hydro Enterprises is made up of Ontario Hydro International Inc. and Ontario Hydro Technologies. These businesses represent our attempt to make profitable use of existing human and technological capacity within Hydro. Most of the growth in the worldwide electricity business is taking place in emerging countries like China and Malaysia. We have the experience, expertise, and world-class technologies to serve that growth, and when we do it profitably it's a benefit to our rate payers.

**Q: The media are constantly speculating about privatization at Hydro. Is it a probability?**

Privatization is not our objective. But we do have a very high ratio of debt to equity, and that's a problem. It makes us very vulnerable because 75% of our costs—those related to debt—are not within our control. We would face tremendous difficulties if interest rates rose suddenly or if some other unpredictable event occurred within our cost structure. So it makes sense to have a more substantial equity base to get through difficult times, without having to subject customers to unreasonable rate hikes. It is imperative that we rebuild lost equity, and private capital is one of several avenues open to us. But it's a means, not an end. And any decision about private capital won't be made by Hydro anyway. It will be made by the government after public consultation and hearings. It's certainly not something we want to do. On the other hand, we most certainly do want to restore the financial integrity of the Corporation. That's absolutely essential. Without it, there can be no security of employment within Hydro or rate security for our customers.

**Q: How have Ontario Hydro's relationships with its customers changed?**

They are better. The zero rate increase has helped. We also rolled up our sleeves last year and sat down with our customers, particularly our larger customers, who are major employers. We listened to them, asked about their concerns, and tried to work out solutions to their energy problems. This is where our future lies. Customers are the heart of this company. They are partners in our business, and we are partners in theirs. This way of thinking has just started to sink in at Ontario Hydro. Much of our work for the next few years will be convincing all our customers, through the quality of our service and the way we manage our affairs, that we deserve their business.



Recognizing Initiative



Due to the **ingenuity** and technical skills



of its employees, Ontario Hydro

has achieved a reputation for

designing and **developing** products

and processes at the

**leading edge** of technology.



**E**ach year, the Corporation presents New Technology Awards to individuals or teams of employees for outstanding technical achievements in the fields of engineering and applied science, and TIPS Awards to any employee with a workable idea for making the Corporation more efficient. Among the many winners in 1993 were:

1/ **David Soong, John Skears and Marc Kwee**, a team that devised a computer system that enables Darlington Nuclear Generating Station staff to analyse, almost instantly, fuel handling and pressure tube fretting data and signals from Unit 3 (compared to the standard two months). Due to the timeliness and quality of the data from the system, the Atomic Energy Control Board of Canada granted permission for continued use of Darlington Unit 1 and the restart of Unit 2. Savings to Hydro over five years are estimated to be \$34.5 million.

2/ **Frank Lenanduzzi**, who was recognized for his redesign of the Direct Expansion Ground-Source Heat Pump system, making it less expensive to build, maintain, and operate. It is estimated that Lenanduzzi's work will save Hydro \$39.8 million over five years.

3/ **Susan Laurin and Wolf Brandt**, who suggested that trust accounts in the regional branches, normally processed manually, be processed instead with a PC-based application known as a Trust Account Management System (TAMS). The new system has improved internal controls and automated all procedures related to trust accounts. The savings over five years are estimated to be \$6 million.

4/ **Art Danay, Louis Adeche, Aly Hindy, James Tang, Les Coley and Ed Dobrowolski**, the team that developed a method to assess the early stages of water absorption in concrete structures. Their method holds promise for external marketing by Ontario Hydro International.

## Employees

Due to declining sales over the past four years, and a commitment to keep rate increases at or below the rate of inflation, Ontario Hydro undertook a major cost reduction and restructuring initiative in 1993. As a result, the number of employees required to meet customer needs was substantially reduced. Since October 1992, more than 6,700 employees chose to take advantage of Ontario Hydro's voluntary termination and retirement program.

In all, Ontario Hydro has reduced its regular workforce by 23.9%, from 29,582 to 22,590. As of December 1, 1993, these cutbacks included a 26.8% reduction in executive staff, 42.8% in supervisory staff, 24.2% in non-supervisory management and professional staff, and 19.9% in Power Workers' Union represented staff. In addition, there was a reduction of about 4,000 contract staff.

The total cost of staff reductions was \$624 million, with resulting savings of \$404 million per year, a payback of 1.54 years.

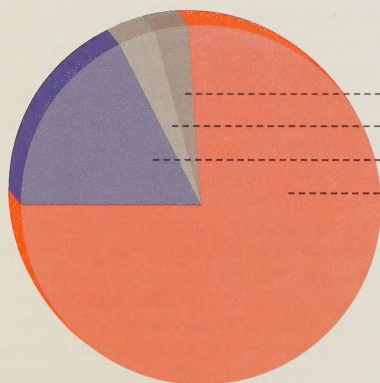
During an open-line radio phone-in for employees late in the year, Chairman Maurice Strong answered questions about staff reductions and the future of the Corporation. He explained that by re-establishing

its financial integrity, Ontario Hydro will ultimately be in a position to offer greater job security to its people.

"I believe," he said, "that the changes we are in the process of making will produce an Ontario Hydro that is much better geared to meet the competitive challenges of the global economy in which we live. I believe we will play an important role—a positive role—in revitalizing our economy, creating jobs across the province, not only for ourselves but for our customers, by keeping our rates down."

To assist with the transition made by departing employees and those who remained, Hydro offered a number of support programs. About 15,000 employees and their spouses took part in various seminars; more than 6,000 employees participated in stress-management programs; more than 1,500 took advantage of internal career-transition services; and 200 others undertook external career-transition counselling (an external job-matching service was offered).

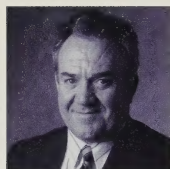
The coming year will be one of consolidating the gains achieved in 1993 and adapting to new employment structures. A continuing focus on competitiveness may mean further staff reductions, but these will occur in a more evolutionary way, and not on the scale of 1993. "The worst," said Chairman Strong during his open-line discussions, "is now behind us."



ONTARIO HYDRO EMPLOYEES

Corporate	758	(3.4%)
Enterprises Group	659	(2.9%)
Energy Services & Environment Group	3,983	(17.6%)
Electricity Group	17,190	(76.1%)
<b>TOTAL</b>	<b>22,590</b>	

Customer Partnerships



"With Hydro's help,

we replaced our fans with more efficient models,

and cut associated power consumption by 33.5%."

John Queenan, Plant Manager  
St. Marys Cement Company

**A**s competitive pressures continued to strain many of the province's businesses in 1993, Ontario Hydro worked to increase the energy productivity of a number of large industrial customers through energy management programs and flexible rates.

#### QUNO CORPORATION

Competition in the forest products industry has become especially intense in recent years. Last year, Ontario Hydro helped QUNO Corporation, a major newsprint producer, launch the largest "load shift" program ever undertaken by a pulp and paper company in North America. "Load shifting" is the transfer of energy-intensive processes to off-peak hours. It allows Hydro to sell its surplus power—generated between 11:00 pm and 7:00 am—at a discount to customers who would not otherwise have purchased energy during these periods.

QUNO's Thorold mill, already one of the most energy-efficient in the country, was able to apply Hydro's flexible new rates to a \$20-million energy conservation project. "Our program had two parts," says Norm Pridham, Manager, Utility Project Services. "First we

increased our daytime production of de-inked recycled pulp, a less energy-intensive process. Then we built two storage tanks to hold wood pulp, which requires more energy to produce, for off-peak hours when we could take advantage of lower rates. Without Ontario Hydro's load-shifting program, we wouldn't have undertaken any of this." Energy consumption was reduced by 15 megawatts—or about \$2.6 million dollars—in the first year.

#### DOMTAR SPECIALTY FINE PAPERS

In 1993, Ontario Hydro introduced the Load Retention Rate, an experimental rate program aimed at retaining customers who have the option to be served by another utility. Because the loss of revenue would put pressure on wholesale rates to remaining customers, Hydro is anxious to work with its customers to develop more competitive rates in these special circumstances.

One customer, Domtar Specialty Fine Papers, qualified for the new Load Retention Rate last year. The company wanted to continue purchasing electricity for its Cornwall plant from Ontario Hydro because of the reliability of supply. The price-reduction agreement includes a 15% reduction of Domtar's total energy bill, with half the savings deposited into a bank account



## Aboriginal Communities

# Building a positive, enduring, and mutually beneficial business relationship with First Nation communities.

Recognizing the importance of its relationship with First Nations and northern people of Ontario, Hydro created the Aboriginal and Northern Affairs Branch in 1991. In 1993, the Branch established a satellite office in Thunder Bay.

The activities of the Branch have been focused on building a positive, enduring, and mutually beneficial business relationship with First Nation communities, and helping to resolve past grievances, especially regarding the planning, construction, and operation of Hydro facilities on reserve or traditional lands.

In 1993, through joint-consensus decision making, Ontario Hydro and several First Nations resolved a number of past grievances. Compensation was offered by Hydro for support of the revitalization of Aboriginal language and culture, socioeconomic development, and environmental efforts.

In one case, at Onegaming First Nation, the community invested part of its settlement with Hydro in the development of an energy management program. The people of Onegaming hope to offer the program to other Aboriginal communities, promoting economic development and creating jobs.

operated jointly by Domtar and Ontario Hydro. These funds are earmarked for capital projects that support sustainable development at the plant.

### ST. MARYS CEMENT COMPANY

In 1993, St. Marys Cement Company worked with Ontario Hydro to examine energy usage at its St. Marys plant. "Much of the energy we buy is used to run the fans that drive air through our kilns," says John Queenan, Plant Manager. "With Hydro's help, we replaced our fans with more efficient models, and cut associated power consumption by 33.5%." Capital costs for the project were \$1 million. "Ontario Hydro is really starting to serve industry," says Queenan. "The introduction of real-time pricing last year was another indication that they're listening to us."

Under the real-time pricing experiment, Hydro sells electricity to customers on an hour-by-hour basis, advising buyers in advance what electricity will cost for the next 24 hours. While St. Marys' kilns operate around the clock, the company's five grinding units can be operated more flexibly. "Real-time pricing," says Queenan, "has meant an additional saving of 24%, which really helps us remain competitive."

### ONTARIO HYDRO AS ITS OWN CUSTOMER

Ontario Hydro is its own largest customer—the single greatest user of electricity in the province. Part of the Corporation's strategy for sustainable energy development is to reduce its consumption by improving its energy efficiency, earning the same ecological and economic benefits it is helping its customers create.

The Corporation's Abitibi Canyon Personnel Facility in northern Ontario, near Kapuskasing, is a case in point. Opened in 1993, the energy-efficient building serves as a stopover for Hydro staff working in this remote region. It is heated with a closed-loop water-based heat pump system that takes advantage of the temperature differential between river water and surrounding air. An ethanol solution flows through eight kilometres of plastic piping submerged in the Abitibi River. Heat is drawn from the pipes by six 10-tonne heat pumps, which use it to warm the building. The cooler ethanol is then pumped back into the pipes and under the river to reclaim more heat. As a result of the system, 152 kilowatts less electricity is used at Abitibi Canyon than in similar buildings with electric heat, a saving of about \$16,000 per year.

"Proponents of  
sustainable  
development

recognize that all  
development has both  
economic and  
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and that both  
must be calculated  
to determine the  
true cost of an  
organization's decisions."

Ontario Hydro's commitment to the dual goals of economic and environmental sustainability took a major step forward in 1993 with the formation of an internal task force that established a sustainable energy development strategy for the corporation and its partners. Led by two world-renowned experts in the field, Jim MacNeill and David Runnalls, the Sustainable Energy Task Force included staff members from each of Ontario Hydro's business units. *The Sustainable Energy Development Report*, which contained almost 100 recommendations, received by the Board of Directors in October, 1993.

In commissioning the report, Chairman Maurice Strong asked the Task Force to "recommend an overall corporate strategy that would enable Hydro (a) to become the world leader in the pursuit of more sustainable forms of energy production, development, and use, in response to Agenda 21 [the multilateral accord issued at the 1992 Earth Summit]; and (b) to help Ontario





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achieve a more innovative, energy-efficient, and internationally competitive economy by applying the principles of sustainable development.”

The recommendations and 10-point Strategy for Sustainable Energy Development contained in the report provide a framework for how the Corporation would operate if decision making was based equally on economic and environmental concerns. The report describes priorities and benefits, and shows that the Corporation and its partners have a tremendous opportunity to become more efficient, innovative, and competitive in the global marketplace. Currently being reviewed by the Board, management, and staff of Ontario Hydro, the report is also being made available to customers and stakeholders for their comments.

Ontario Hydro has undergone a reorganization intended to improve both its management accountability and financial position. The Task Force believes that such restructuring is the necessary prelude to a shift toward sustainable energy policies and practices.

The Report emphasizes that profound change at Ontario Hydro can only be accomplished with the full commitment of management and staff, and will require innovation in the way people are managed and motivated. Key recommendations include communicating the guiding principles of, and opportunities inherent in, sustainable energy development, education and training programs for staff, and the inclusion of employees in decision making throughout the new Ontario Hydro.

Hydro's new business orientation includes reorganizing the Corporation into three principal business units, each with a high degree of operating responsibility and accountability. The report recommends that employees be encouraged to think more entrepreneurially, and that Hydro's management culture include recognition of employee initiative. Reward systems,

Assistant mechanic Ed Leeder (Mechanical Maintenance, Hydroelectric) conducts a routine maintenance check on the new 10-megawatt hydroelectric generating facility at Big Chute near Port Severn, Ontario.



says the Task Force, would motivate staff to identify and implement opportunities for greater energy, resource, and environmental efficiency.

In recent years, Ontario Hydro has provided greater opportunity for stakeholders to comment on its strategies and plans. The report recommends that these efforts be intensified. By ensuring that stakeholder contributions are integrated into strategies and plans before they are presented for full public review, the Corporation will shorten lead times and reduce its costs.

Beyond a more entrepreneurial and open management culture, the Task Force found that there are "enormous opportunities to become more energy- and resource-efficient, and more innovative and competitive." The starting point should be within the Corporation itself. Ontario Hydro can lead by example, conserving energy and reducing its impact on the environment by making all its facilities more efficient. It can also

charge its business units for the energy they use, thereby instilling an even greater incentive to conserve.

Ontario Hydro has a solid record of environmental compliance. The Task Force emphasized that the new Ontario Hydro must now build on this record by moving beyond compliance into leadership. The old approach to industrial development was to develop first and clean up afterward. The new model is one of prevention, where cleaner processes, financed from the outset, pay both economic and environmental dividends throughout the life of the facility. The cost of cleaner technologies, according to the Task Force, can often be recovered through operating efficiencies and the marketing of new energy-related services and technologies. It was further recommended that Ontario Hydro encourage changes in legislation that would allow it to take advantage of more cost-effective ways to meet or exceed environmental standards.

## A 10-Point Strategy for Sustainable Development

**1**  
Introduce a  
positive  
institutional  
culture.

Integrate  
environment  
and economics  
in decision  
making.

**2**  
Adopt  
full-cost  
accounting.

**3**  
Strengthen  
energy-efficiency  
and demand-  
management  
programs.

Shift from  
compliance to  
leadership on  
environmental  
performance.

Deploy  
Hydro's  
procurement  
power  
strategically.

Develop,  
adopt, and  
promote sus-  
tainable energy  
technologies.

Increase inter-  
national market  
opportunities  
for sustainable  
energy use.

**9**  
Introduce new  
working  
relationships  
with stake-  
holders.

Communicate  
opportunities  
for  
sustainable  
energy use.

## Six Guiding Principles for Sustainable Energy Development

- Efficiency
- Stewardship
- Intergenerational Equity
- Precaution
- Partnerships
- Innovation

Hydro conserves energy through various demand-management programs. The Task Force concluded that these programs could be redesigned to better encourage the efficient use of energy by customers, thereby helping Hydro meet its overall energy-conservation goals. The Task Force regards improved energy efficiency as essential to the Corporation's new economic and environmental stability because it is a cost-effective alternative to new generation and transmission facilities.

Proponents of sustainable development recognize that all development has both economic and environmental costs, and that both must be calculated to determine the true cost of an organization's decisions. The Report recommends that Ontario Hydro introduce "full-cost accounting" into its decision making, and that a managerial framework be created to ensure consistent, corporate-wide implementation.

Sustainable development is also implicit in buying and selling. The new Ontario Hydro has an opportunity to promote sustainable development through its annual purchasing power of \$3.5-billion and the creation of new corporate procurement standards that encourage suppliers to provide "greener" products and services. On the selling side of the equation, the Task Force recommends that the recently created Ontario Hydro Enterprises business unit aggressively pursue markets for the expertise and technologies that result from the Corporation's considerable research and development investments. Through domestic and international marketing, there is an opportunity to transform innovative sustainable energy development technologies into new businesses, new jobs, and greater profits.

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The single new 10-megawatt unit at Big Chute replaced four aged units that produced a total of only four megawatts.



Interview with Dr. Kupcis



"Our people are trying to **customize** our services and **maximize** the value of the electricity we sell in response to the problems and pressures our customers are facing."

Dr. Allan Kupcis  
President and COO

**Q: From your perspective as president, Dr. Kupcis, how would you describe 1993 at Ontario Hydro?**

It has been momentous, traumatic, and exhilarating. At every level of the company most employees have experienced that range of feelings in 1993. You must consider the transition we've made in light of the growth forecasts the company has been operating under for the past few decades. It was a complete reversal. We accomplished a great deal in a very short period—for the benefit of our customers, for the benefit of the Corporation.

**Q: People are hearing a lot about "the new Ontario Hydro." How is it different from the old Ontario Hydro?**

The single most important word is "accountability." In restructuring Ontario Hydro our overriding concern was to develop individual accountability at all levels

of the Corporation—a pervasive corporate-wide accountability that will help us meet the needs of our customers. Over the years we had become a large bureaucratic utility. Our operating style diffused accountability. Today, the structural changes and many of the behavioural changes we are bringing about are linked directly to individuals assuming responsibility. We want Hydro people to understand the expectations their company has of them. And it appears that many do.

**Q: Of the many changes made at Ontario Hydro during the past year, which are most gratifying for you?**

What have pleased me most are the attitudinal changes, especially the recognition among the majority of Hydro staff of the pronounced need to do something and do it quickly. Having that kind of support from



a large enough group within Ontario Hydro gave us the confidence to proceed. The acknowledgement of the need to change led to a surprising amount of innovation—the new ways people are doing their work and taking responsibility. Entire groups within the company are starting to innovate to meet our new business-like orientation, to control costs, to serve customers. Those are critically important qualities that we're trying to cultivate at Hydro, and we're very pleased to see our people exemplifying those qualities.

**Q: What improvements are still needed?**

There's much work to be done to convince an even larger proportion of Hydro staff of the need to change. You can't just command that people become value-conscious overnight. They must be motivated and re-motivated if the company is to be successfully revitalized in the long run. It's a matter of cultural overhaul, of spreading the principles of continuous improvement and individual empowerment throughout a culture that simply hasn't ever seen the need for these qualities. And let's be honest, we must overcome the significant downward movement in morale that is the natural outcome of traumatic change. This is a big job. The answer is to engage people in valid, meaningful work. And patiently bring about a corporate-wide uplifting of morale.

**Q: How has the "business-like" style of the new Ontario Hydro unfolded? And what effect has it had on customers?**

That's not an easy question to answer universally from this office. Being business-like is certainly our goal, but again, it's one of those momentous cultural and corporate changes that will take time.

Having said that, allow me also to say there is evidence throughout the Corporation that we are indeed becoming a business, especially in the management committees of the new business units. They have income objectives. They have profit-and-loss statements to adhere to. They have performance requirements. The talk in those meetings is very different than it used to be. It's now about business decisions related to unit-costs, about inputs and outputs related to cost and budgets. That is an extraordinary change.

As for the effects on our customers, the biggest one, of course, is our zero rate increase in 1994. We are cutting

costs throughout the corporation and passing those savings on to our customers. For 1995, we project that rates will not rise above the rate of inflation, which is very low. Customers are also finding Ontario Hydro responding to their needs with far more innovation. Our people are trying to customize our services and maximize the value of the electricity we sell in response to the problems and pressures our customers are facing.

**Q: Part of the corporate restructuring this past year was a \$24-billion cut in capital spending. Naturally, people are asking whether a cut of that magnitude will have an effect on future reliability. Will it?**

No. Those cuts would not have been made if they threatened future reliability. Our assumptions have changed. The capital spending cuts reflect a very different forecast of the future, in terms of the "electric intensity" of the province and its economy. While we can't possibly predict the future with accuracy, we have learned enough over the past four years about the decreasing demand for electricity to know that previous load forecasts are simply not going to materialize. The obvious response was to eliminate planned capital additions based on those forecasts. However, we retain the ability to respond to future load growth and to a good degree of unanticipated load growth. Most of the spending cuts eliminated new capital additions to the system, although we still have a significant capital program to keep the current system strong.

**Q: Are you confident there will not be shortfalls if demand increases at a greater rate than anticipated?**

Yes. I am confident that we have the response capability to avoid shortfalls. Load requirements don't just surge ahead in a year. There is time to recognize a path of higher-than-predicted growth. And we have surplus system capacity in place, ready to go. For example, we have a major fossil-fuel plant that has been mothballed. It can be brought back in a relatively short time. We also have a whole range of short-term options that can be exercised in far less than the 8-to-12-year building time needed for a major new addition to supply.

Ontario Hydro has in no way compromised its mandate to provide the people and businesses of Ontario with reliable electrical energy. We're simply smarter now, adjusting the best we can to the new realities of being a company that sells a service not a commodity.



The Electricity Group

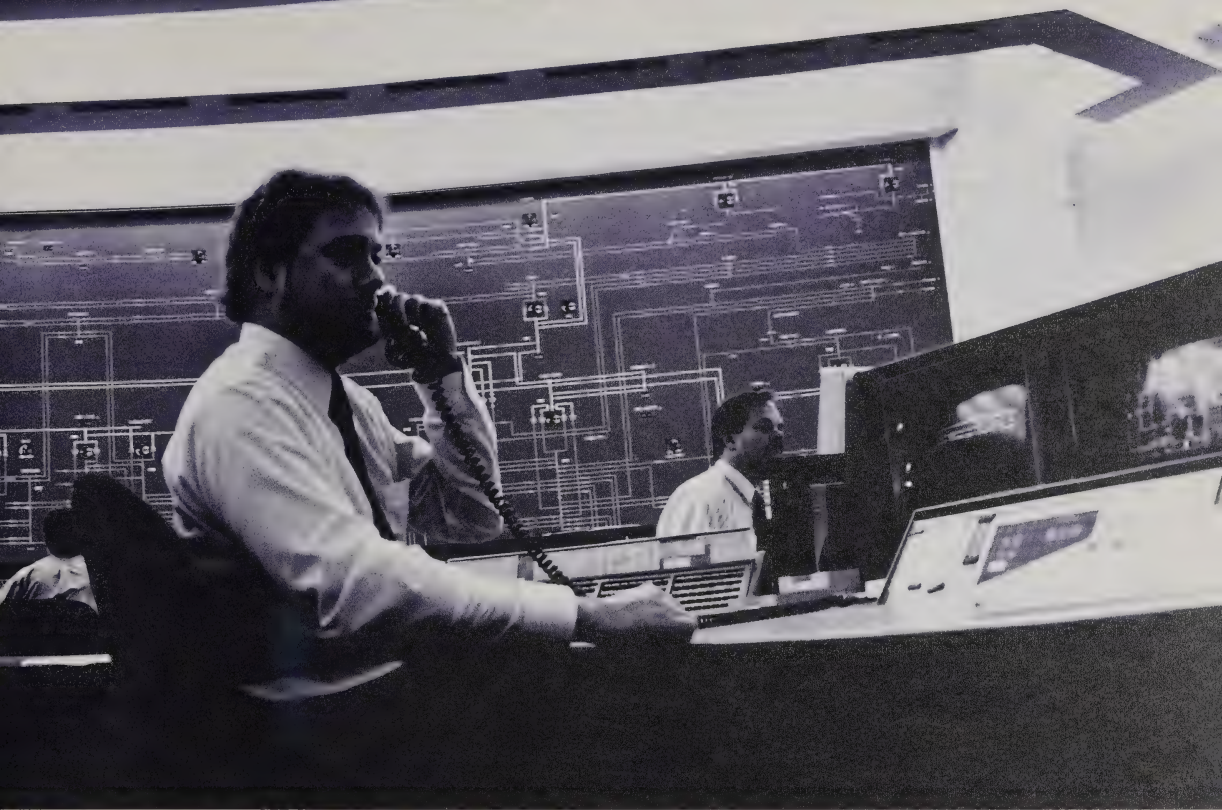
"The Group's  
new autonomy

and the corporate  
adjustments required to  
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declining energy  
consumption  
and escalating costs,  
which made 1993 an  
especially challenging year."

The Electricity Group, one of three companies within the reorganized Ontario Hydro, consists of four business units: Fossil, Nuclear, Hydroelectric, and Grid. As businesses, these units are now responsible for their own planning, operations, and financial results, and each has the necessary resources and authority to meet these responsibilities. The Group's new autonomy and the corporate adjustments required to carry it forward have come at a time of declining energy consumption and escalating costs, which made 1993 an especially challenging year. The successes of the Group are, therefore, all the more remarkable.

In 1993, for example, Electricity Group achieved, within 12 months, the corporate-wide mandate to reduce operations, maintenance, and administrative costs by 25% over two years. A tripartite team, consisting of Power Workers' Union, The Society, and management staff, worked together to manage the redeployment process. This coalition was instrumental in establishing





#### ANNUAL REPORT 1993

transition teams and increasing employee involvement and communications. The Electricity Group also built upon its working relationships with aboriginal communities, environmental organizations, and other interest groups, such as the Municipal Electrical Association and AMPCO.

##### **FOSSIL BUSINESS UNIT**

The Fossil Business Unit's contribution to Ontario Hydro's total output in 1993 was 18.1 terrawatt hours (TW.h), down sharply from the 1992 total of 28.1 TW.h because of reduced demand for electricity and an increase in Hydro's nuclear energy production. The business's six generating stations – Atikokan, Thunder Bay, Lakeview, Lambton, Nanticoke, and Lennox – produced 14% of the total system energy. The unit met its key targets for availability and reliability, providing the Electricity Group with valuable flexibility during times of peak system usage.

In response to declining customer demand, the Fossil Business Unit consolidated its operations in 1993.

To reduce surplus capacity, four units at the Lakeview Generating Station in Mississauga were laid up during the first four months of the year, reducing Fossil's total capacity by 1,200 megawatts (MW) to 10,000 MW. The unit's regular staff level was reduced from a projected 1993 year-end total of 3,010 employees to 2,357. Operating, maintenance, and administration costs were cut from a budgeted \$268 million to \$248 million. Coal purchases were scaled back by about \$50 million, with a further reduction of \$130 million planned for 1994 to 1996. Capital spending was reduced from a projected \$516 million to \$350 million.

Fossil's only major capital program in 1993 involved the rehabilitation of Lambton Units 3 and 4, installation of flue-gas desulphurization scrubbers on those units, and combustion modifications to Unit 4.

Barry Ziegler, Senior Control Supervisor at the Clarkson Control Centre, is one of the staff members responsible for overseeing the matching of generation and load on a second-by-second basis in the System Control Centre. The highest system demand ever recorded was 24,007 megawatts.



The rehabilitation work was completed ahead of schedule and under budget. The flue-gas desulphurization scrubbers are scheduled for completion in mid-1994. Installation of the scrubbers is an important step toward environmental protection and sustainable energy development. They will remove 90% of flue-gas sulphur dioxide and allow for the use of cheaper coal, providing substantial savings over time. Improved combustion performance in Lambton Unit 4 will reduce nitrogen oxide emissions by about 30%.

Reduced energy production resulted in acid-gas emissions that were roughly half the Ministry of Environment and Energy limit. The business also achieved an almost 50% reduction in reportable spills.

Two major contracts were signed in 1993 for supply of power-production byproducts to the construction industry. Westroc Industries of Mississauga will purchase desulphogypsum, a byproduct of the Lambton scrubber process, for use in gypsum board. And the Nanticoke Generating Station will sell dry fly-ash to the Lafarge Corporation plant in Alpena, Michigan, to be used in cement manufacturing. These contracts, which will divert substantial amounts of material from landfill, have environmental and economic benefits for both buyers and Ontario Hydro.

#### **NUCLEAR BUSINESS UNIT**

Despite reductions in overall energy-production capability, the new Nuclear Business Unit met its target for 1993 of generating more than 77.5 TW.h of electricity.

Ontario Hydro Nuclear recommended to the Atomic Energy Control Board (AECB) that both the "A" and "B" Units of the Bruce Nuclear Generating Station be de-rated to 60% of capability. With improvements completed by year end, the AECB had authorized an increase to 80% of capability for the "B" Unit.

To extend the life of the Unit 4 reactor at Bruce, equipment was installed to reposition the garter springs that keep pressure tubes and calandria tubes separate in the reactor. The new technology added five to seven years to pressure tube life, and potentially saved millions of dollars.

In 1993, Pickering's Unit 7 broke the North American record for continuous electrical production—533 days. It is well on its way to surpassing the world title of

713 days. Four Pickering Nuclear Generating Station reactors that were re-tubed in 1992 continued to perform well in 1993. Units 1 and 9 of Station "A" operated at more than 90% of capability, while Units 3 and 4 showed steady improvement, approaching 80% by year end. Work has begun on a \$126-million safety program at Pickering "A" to provide additional back-up for the facility's shutdown system.

At the Darlington Nuclear Generating Station, fuel damage problems that caused concern in 1992 were effectively resolved. As a result, Darlington's four units operated at 80% of capability throughout 1993.

#### **HYDROELECTRIC BUSINESS UNIT**

The Hydroelectric Business Unit increased its energy production in 1993 to 36.8 TW.h, or 28% of Ontario Hydro's total system power. Now approaching its second century of service, the Unit will continue to focus on restoration and upgrading work begun on its older stations in 1992. Thirty-four hydroelectric generating stations, averaging 75 years in age, are scheduled for renewal.

Restoration of the Coniston Generating Station Dam on the Wanapitei River and the Red Rock Falls Generating Station Dam on the Mississagi River were completed ahead of schedule and under budget by more than \$2 million.

The capacity of the Sidney Generating Station on the Trent River was increased from 3.4 to 4.5 MW, and the capacity of the Merrickville Generating Station on the Rideau River was more than doubled to 1.8 MW. The life of both stations has been extended by approximately 80 years.

The redevelopment of the Big Chute Generating Station, which was completed in 1993, is a model of environmentally sound and sustainable energy development. Purchased by Ontario Hydro in 1914, Big Chute is located in the Muskoka Region on land protected as an area of natural and scientific interest. Redevelopment of the site was required to increase service and ensure the long-term structural integrity of the station. After designing a project plan, the Hydroelectric Unit entered into public consultation with customers, local residents, cottagers, and boaters. An advisory committee of local government and interest groups ultimately helped revise Hydro's original plan.

The proposed increase of capacity—from four to 12 MW—was scaled back to 10 MW. Redevelopment was completed without changes to water levels and flow, and construction was mostly carried out during winter months, causing minimal disruption to boating and other recreational activities, and no net damage to fish stocks.

Environmental stewardship was also the motivation behind the removal of the Moose Lake Generating Station in 1993. Located on the site of the Atikokan Fossil Generating Station, Moose Lake had been out of service since the 1940s and posed a hazard to hikers and other visitors to the site. During the dismantling, water levels were not affected and the land occupied by the station was graded and seeded for return to the natural environment.

#### GRID BUSINESS UNIT

In spite of challenges resulting from downsizing and restructuring, the Grid Business Unit completed engineering and construction on 14 transmission-line projects in 1993 with a value of \$177 million, and 60 transformer-station projects with a value of \$175 million. Considerable progress was made on the 500-kV Lennox GS to Bowmanville transmission line, scheduled for service by November 1994. The company also significantly improved its average-severity rate for accidents. One construction department recently exceeded three years without any lost time due to injury.

To better serve its customers and apply the principles of sustainable energy development, the company implemented an Integrated Resource Planning (IRP) approach in 1993. Traditionally, the need for supply was filled through costly, large-capacity infrastructure projects. IRP solutions consider less expensive and more imaginative just-in-time alternatives such as targeted demand management, targeted local generation, creative operating measures, and various flexible or portable supply reinforcement measures. The Grid's IRP projects involve customers and partners in the planning process. Local IRP projects are in progress in the Greater Toronto Region, the City of Toronto, the Chatham-Windsor area, and Collingwood.

Also in 1993, the Grid conducted its first major study for an international customer. This involved the planning of an extra-high-voltage overlay to the Singapore Public Utility Board's existing 230 kV system to allow for

expansion through load levels in the range of 4 gigawatts to 18 gigawatts. The Grid secured the contract in spite of intense competition from international utilities.

An application was made in October 1993 to the National Energy Board (NEB) to proceed with a synchronous interconnection with Minnesota Power. If approved as expected in 1994, the interconnection will permit Ontario Hydro to sell excess energy to Minnesota and adjacent areas, starting in 1995, and to purchase energy from those areas when it is advantageous to Ontario customers.

#### BUSINESS SERVICES UNIT\*

In 1993, the Business Services Unit played a vital role in assisting Ontario Hydro to become a more business-like and customer-focused organization. It helped introduce new information and financial management systems within the Electricity Group and other units of the Corporation, and developed an action plan for more advanced stages of information management. In one area alone—computer technology assessments—costs were reduced by over 25% due to the Unit's work.

In 1993, the Unit pursued sustainable development opportunities, including an in-house "Buy Green" purchasing initiative, the installation of energy-efficient lighting at Hydro's headquarters, and the recycling of fine paper, glass, cardboard, and wood.

#### ELECTRICITY GROUP:

##### SUMMARIZED STATEMENT OF FINANCIAL POSITION

as at December 31, 1993 (unaudited) millions of dollars

	1993
Fixed assets in service (net book value)	34,539
Construction in progress	3,435
<b>Total assets</b>	<b>37,974</b>
Debt	32,519
Other liabilities (net)	712
Accumulated provisions	1,774
Equity	2,969
<b>Total liabilities and equity</b>	<b>37,974</b>

\*In March 1994, the Services Unit and the Business Integration Unit in the Electricity Group combined to become the Business Services Unit. The Unit reports to the President.

STATEMENT DOES NOT INCLUDE CORPORATE FUNCTIONS

"If we're going  
to meet our

customers'  
needs and  
expectations

we want to have all our  
currencies on the  
table, so we can respond  
with a broad array  
of options and  
offerings."

Customers have always been able to depend on Ontario Hydro for their energy needs, whether they are using a new household appliance or running a business. Reliable supply has always been Hydro's first priority. But today, in addition to generating and transmitting electricity, Ontario Hydro must help its customers derive the maximum value from the energy they use.

For this reason, the Energy Services and Environment Group was created in 1993. By uniting the business units responsible for customer contact, and integrating the former Environment Unit, Hydro is better able to design practical new programs in response to customer needs based on the principles of sustainable energy development, economic competitiveness, and flexible service options. "If we're going to meet customer needs and expectations," says John Fox, Managing Director of the company, "we want to have all of our currencies on the table, so we can respond with a broad array of options and offerings."





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Formerly the manager of Energy Efficiency Services at the California-based Pacific Gas & Electric Company, one of the world's most progressive utilities, Mr. Fox joined Ontario Hydro in 1993. Under his direction, a strategy paper entitled *Ontario Hydro Energy Services Strategic Direction* was prepared.

In the paper, the company addresses the new realities of the business climate in which Hydro and its customers operate, describing it as "the most rapidly changing and least predictable economic environment in the lifetime of most Ontarians." The core message—that the Corporation must match energy services to customer needs—is backed by the results of an extensive 1993 survey of Hydro's customers. "We call the paper a *discussion paper*," says Fox, "because when we released it to our customers and stakeholders in November, we invited them to join us in an urgent and purposeful dialogue on how we can cooperate to strengthen Ontario's economy and protect our environment." This strategy was sent out for stakeholder review in 1993 and is expected to be implemented in 1994.

### RETAIL SYSTEM BUSINESS UNIT

The Retail System Business Unit has nearly one million customers among the Ontario homes, businesses, farms, and cottages not served by a municipal utility. It manages 18 million megawatt-hours of power annually (15 % of the electricity produced by Ontario Hydro) and revenues of over \$1.6 billion.

To become more efficient and economical, the Retail Unit was redesigned in 1993. In an effort to control costs, improve customer satisfaction, and establish clear accountability for work and work results, 45 area offices were consolidated into 15 "utilities" operating under the Retail Business Unit.

In 1994, the Retail System Business Unit will be more directly accountable for its operations, responsible for its

In partnership with the University of Toronto, Ontario Hydro is conducting one of the largest lighting system retrofits in North America. Project manager Ken McMaster discusses the project in the Massey College dining hall with Richard Chong of Sylvania Ltd., University of Toronto's Attila Keszecsek and Derek Pienczak, and Mike Butters of Ontario Hydro.

own financial statements, customer satisfaction, work environment quality, and for managing its bottom line.

The Retail System's Electrical Inspection Unit, which was also reorganized to reduce costs and increase efficiency, now has a mandate to provide customers with easier access to inspection services.

#### **Customer Accounts Business Unit**

Hydro's primary customers include 309 municipal utilities, 104 direct industrial customers, two distribution companies, and Hydro's Retail utilities—a diverse group with a wide range of needs. Customer Accounts is responsible for Ontario Hydro's business relationships with its primary customers, providing them with a single point of contact to access the complete range of services and information they require. The Unit's staff spent much of 1993 building more productive customer relationships based on sound business principles and customer-focussed account planning. All customers were assigned a Customer Accounts contact and provided with that person's name.

While some primary clients are content with a reliable supply of power, others want additional services, such as billing analysis, load research, and energy audits. The value of Hydro's services to each customer varies, as does their willingness to pay for them. According to the new strategic direction, Hydro must "unbundle" its services—differentiating basic from optional—to ensure the needs of all customers are met. Customer Accounts also works closely with the Energy Management Business Unit to integrate and coordinate services and products to meet customer needs.

#### **ENERGY MANAGEMENT BUSINESS UNIT**

The four divisions of the Energy Management Business Unit—Energy Services Marketing, Energy Services Delivery, Rates, and Non-Utility Generation—introduced a number of new strategies in 1993 to increase efficiency, improve customer service, help retain existing customers, and foster economic development in the province.

#### **Energy Services Marketing & Energy Services Delivery**

To the customer, the line between the new Energy Services Marketing and Energy Services Delivery units is invisible. These two divisions work hand-in-hand to provide Hydro's many customer groups with cost-effective energy-efficiency alternatives.

Energy Services Marketing designs programs and services, based on extensive customer consultation. Energy Services Delivery works directly with municipal utilities, industrial customers, distribution companies, and institutional clients to introduce these programs and services to the marketplace. The division also works closely with allies and customers in joint ventures and community-based programs to further extend Hydro's energy management expertise.

In 1993, Energy Services Marketing and Energy Services Delivery continued to help Ontario homeowners and businesses save energy and money. Through Ontario Hydro's "Home Power Saver Program Audits," conducted in partnership with 180 utilities, more than 500,000 customers conducted energy audits, identifying more than \$89 million in potential savings. In 1993 alone, energy savings in excess of six MW were achieved.

Municipal utilities and their consumer and business customers use approximately 70% of the electricity produced by Ontario Hydro. Projects such as the Espanola Community Energy Efficiency Project, and the Ontario government's Green Communities Initiative, are setting the pace for municipal efficiency programs. (To date, Espanola has reduced demand by 2,000 kW. Ontario Hydro and its associated municipal utilities are vital partners in these programs.)

In Toronto, Ontario Hydro has been developing long-term partnerships with the Metro Separate School Board, the Metro Toronto Board of Education, and the University of Toronto. The Corporation performed multi-facility audits for each institution and developed plans that will substantially reduce energy use over the next three to five years. The University of Toronto, for example, will undergo the largest lighting system retrofit in North America—some 90,000 fixtures—beginning in April of 1994. The retrofit is one component in a five-year energy management plan developed in cooperation with the University which, when complete, should reduce demand by six MW.

Building on its experience and success in energy management and in partnership with both the public and private sectors, Hydro also continues to support the development of cost-effective technologies, codes, and practices that will significantly improve energy productivity. In July, for instance, the new ASHRAE 90.1

standard was introduced into commercial building codes in Ontario, partly due to recommendations made by the Energy Services divisions. The new standard will significantly increase the efficiency of new commercial construction.

### Rates

Rate flexibility is an important element in Ontario Hydro's energy services strategy. In 1993, for example, an experimental surplus power rate was introduced. Hydro's direct industrial customers could purchase surplus energy—power that was available but not required at that time—on daily notice. By year end, sales of this surplus energy added \$5.8 million in revenue to the Corporation's operating statement.

In 1993, Ontario Hydro committed to a zero rate increase for 1994 and to restricting increases for the remainder of the decade to the rate of inflation. The Rates Division also began development of an expanded rate menu, as part of the implementation of the *Energy Services Strategic Direction*, for submission to the Ontario Energy Board for review in 1994.

### Non-Utility Generation (NUG)

The NUG Division manages the acquisition of non-utility generation to meet corporate objectives, formulates purchase rates to meet system need, and ensures the integration of non-utility generation within system requirements. NUG is defined as electrical generation located in Ontario which Hydro does not own or operate, such as small hydroelectric plants, co-generation plants, and energy-from-waste facilities. There are currently 2,000 MW of NUG energy in Ontario's electrical system and, if all currently approved and committed projects proceed, a total of 3,000 MW will be operational by 1997.

In 1993, the *Strategy for Non-Utility Generation* was developed, stating that Hydro would not be soliciting new NUG proposals because of surplus capacity. Even in a surplus situation, however, NUG capacity can offer certain advantages to the system, such as serving remote or transmission-constrained communities or demonstrating sustainable technology. NUGs will continue to be regarded as a supply option, and will be considered for development when consistent with customer and system needs. When more NUG capacity is required, preference will be given to projects that are environmentally sustainable.

### ENVIRONMENT BUSINESS UNIT

Ontario Hydro is committed to becoming a leader in sustainable energy development. In 1993, the Environment Business Unit became part of the Energy Services and Environment Group, and played a central role in the Sustainable Energy Development Task Force that examined all aspects of Hydro's structure, programs, and activities from a sustainable development perspective.

Following the presentation of the Task Force report to the Board of Directors in October, 1993, the Environment Unit began to coordinate the implementation of the strategy under the guidance of newly appointed director of the Unit, Brian Kelly. The first step was to review the report with employees, customers, and stakeholders, and to discuss with them the Corporation's transition from traditional electrical utility to an energy service company. To reflect this broadened mandate, the unit was renamed Environment and Sustainable Development Division.

In 1993, the new Environment and Sustainable Development Unit also conducted community outreach programs in recognition of Earth Day, Environment Week, and Waste Reduction Week, and provided a comprehensive overview of Ontario Hydro's operations in its *Annual Environmental Performance Report*. The report assesses the performance of the Corporation in relation to its environmental objectives—both regulatory and internal. Nearly 750 copies were distributed in 1993 to government agencies, customers, environmental groups, and community organizations.

### ENERGY SERVICES & ENVIRONMENT GROUP: SUMMARIZED STATEMENT OF FINANCIAL POSITION

as at December 31, 1993 (unaudited) millions of dollars

	1993
Fixed assets in service (net book value)	2,366
Construction in progress	146
Deferred demand management costs	360
<b>Total assets</b>	<b>2,872</b>
Debt	2,494
Other liabilities (net)	8
Equity	370
<b>Total liabilities and equity</b>	<b>2,872</b>

STATEMENT DOES NOT INCLUDE CORPORATE FUNCTIONS





Ontario Hydro Enterprises Inc.

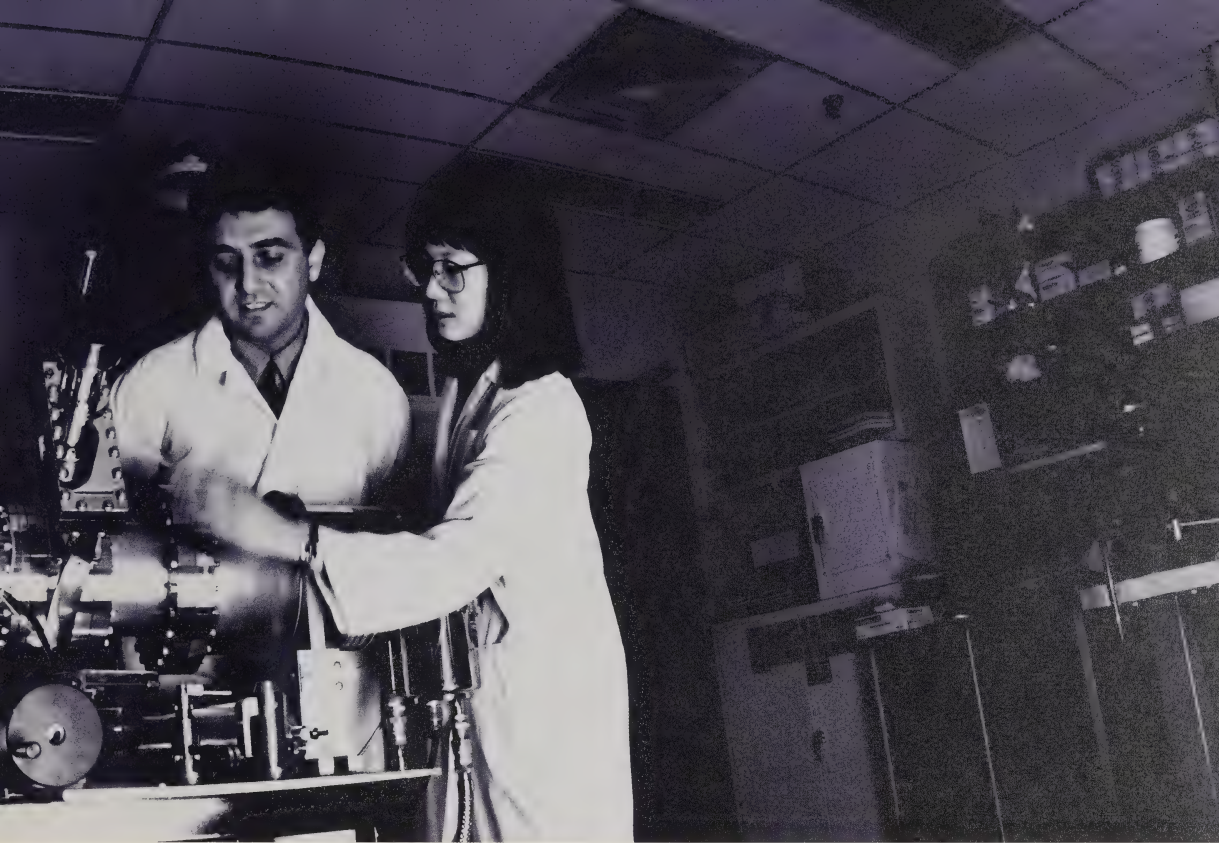
"Ontario Hydro

is well positioned  
to take its  
technologies  
to the marketplace  
because of the  
high calibre  
of its research facilities  
and the breadth  
of its expertise."

The third major business unit formed in 1993 as part of Ontario Hydro's reorganization is Ontario Hydro Enterprises. It comprises two wholly-owned subsidiaries: Ontario Hydro Technologies (OHT), formerly the Corporation's internationally acclaimed Research Division; and Ontario Hydro International Inc. (OHI Inc.), an independently incorporated organization responsible for marketing Ontario Hydro's products and services abroad.

Ontario Hydro is well positioned to take its technologies to the marketplace because of the high calibre of its research facilities and the breadth of its expertise. Few utilities in the world operate nuclear, coal-fired, oil-fired, and hydroelectric generation and combustion turbines, together with a transmission system that transfers voltages up to 500 KV.

OHT, the technology group, employs more than 400 scientists, engineers, and technologists in all fields related to electric-power generation and associated



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industries. Historically, OHT has supported Ontario Hydro's 34,000-megawatt generation, transmission, and distribution system, including advanced nuclear technology and some of North America's largest (and in some cases, oldest) hydroelectric and fossil thermal stations. The OHT staff offers advance problem-solving and technical-support services to all Ontario Hydro business units, and conducts long-range studies on industrial, commercial, and residential applications.

OHT's international reputation is based on its ability to transfer its technologies to other utilities effectively and efficiently. It is, for example, the recognized leader in stability modelling and power system stabilizer applications. OHT provides comprehensive consulting services related to this technology and markets its own power system stabilizers, which are among the most advanced in the industry. OHT is also a world leader in nuclear performance reporting systems, nuclear waste container welding systems, and many other technologies related to nuclear power.

With its reorganization, OHT now has a mandate to more aggressively market its services and commercialize its technologies, while helping Hydro become a leader in sustainable development. This will largely be achieved through strategic alliances, joint ventures, equity stakes, and licensing agreements.

Over the past few years, OHT has patented and commercialized 31 inventions related to electrical power and energy conservation. A well-known example is the Turbine Generator Analyzer (TGA), a device that accurately assesses deterioration of generator windings, saving money through the avoidance of automatic rewinding done as routine maintenance. In 1993, three OHT inventions were licensed to Ontario companies: the Stopfall Pole Climbing Device, an Isotope Ratio

At OHT's Kipling Research Facility, an ultra-high vacuum chamber is used to conduct controlled gaseous environment exposures for testing pressure tube materials in nuclear reactors. Technologist Laniel Grant (left) built the testing apparatus based on a design by Mohammed Elmoselhi, engineer (centre) who is assisted by engineer Marianne Wong.





As the international electricity business continues to grow, Ontario Hydro's mandate is to become a "borderless" utility that sells its services and technologies to customers across the world.

Measurement Device, and an Electro-Magnetic Rock Breaker. It is estimated that these three devices alone will generate more than 40 person-years of employment.

OHT operates a full range of well-equipped laboratories, test sites, and engineering facilities, many of which are unique in North America. These facilities and OHT's cross-discipline scientific expertise are available to customers on a contract basis—a cost-effective alternative to in-house programs and staffing for routine testing and long-term R&D. Organizations that have taken advantage of OHT's expertise include Consolidated Edison, Florida Light & Power, the Tennessee Valley Authority, and the Canadian Electric Association.

#### **ONTARIO HYDRO INTERNATIONAL INC.**

The second subsidiary of Ontario Hydro Enterprises, Ontario Hydro International Inc. (OHI Inc.), was incorporated in 1993. It reports to its own board of directors, which allows it the flexibility to respond rapidly to international market opportunities.

OHI Inc. is the Corporation's "point of contact for international customers," a global utility that markets all Hydro's services and technologies, from integrated resource planning to engineering to utility management and power development. Its mandate is "to be the leader in energy efficiency and sustainable development in the international marketplace." All projects under consideration by OHI Inc. must include

sustainability as a component, and each project must be of benefit to the host country and profitable for OHI Inc.

As one of the world's largest and most diversified electric utilities, Ontario Hydro has the opportunity through OHI Inc. to build, rehabilitate, and in some cases own, major power stations throughout the world. In 1993, to further leverage its influence and resources, OHI Inc. formed a partnership with Hydro Quebec International (a subsidiary of Hydro Québec) and Power/Asia Assets Corp. (a subsidiary of Power Corporation of Canada). Named Asia Power Group/Groupe Énergie Asie Inc. (APG) and headquartered in Hong Kong, the partnership will pursue investment opportunities in high-growth Asian countries, including China, Malaysia, Thailand, Singapore, Indonesia, and the Philippines. Initially, APG will focus its efforts in China, where massive investments in energy projects are planned to meet the country's rapid economic growth. (China intends to double its electrical capacity by the turn of the century.) OHI Inc. will pursue similar alliances in South America, the Middle East, and Africa.

In late 1993, OHI Inc. signed a consortium agreement to assist in the development of the US \$1-billion San Roque Multipurpose Hydroelectric Project in San Manuel, Philippines. OHI Inc. will provide construction supervision, project management, design engineering, and long-term maintenance of the hydroelectric



station, which includes three 130-MW units. A major construction job, the project will involve power generation, transmission lines, irrigation for over 70,000 hectares of land, flood control, and the improvement of water quality in the Lower Agno River. OHI Inc. will assume a 10–15% equity stake in the facility when it is complete.

OHI Inc. is assisting the Public Utilities Board of Singapore in determining its needs for a proposed expansion of the country's transmission system. With subcontractor BC Hydro, OHI Inc. is conducting comprehensive technical studies to assess the planning, design, and development of an extra-high-voltage system.

Malaysia is also restructuring to meet economic growth, and in 1993, OHI Inc. and Malaysia's Tenaga Nasional Berhad (TNB) took the first steps toward forming an alliance that will share information and promote sustainable energy development. It is expected that OHI Inc. will sign a technical cooperation agreement with Malaysia, similar to agreements it has in place with France, Egypt, Taiwan, and Kyrgyzstan.

In 1993, OHI Inc. was also instrumental in negotiating a five-year US \$270-million supply contract for heavy water, between Atomic Energy of Canada Ltd. and the Korean Electric Power Utility. The majority of the heavy water will be supplied by Ontario Hydro's Bruce Heavy Water Plant (the source of almost 80% of the world's heavy water supply).

In 1993, W. David Hopper, a former Senior Vice-President of the World Bank, became the first Chairman of OHI Inc., an appointment that reflects the group's determination to work closely with international finance agencies and conduct an increasing share of its business in Asia and across the developing world.

**ONTARIO HYDRO ENTERPRISES GROUP:  
SUMMARIZED STATEMENT OF FINANCIAL POSITION**

*as at December 31, 1993 (unaudited) millions of dollars*

	1993
Fixed assets in service (net book value)	77
Other assets (net)	60
<b>Total assets</b>	<b>137</b>
<b>Equity</b>	<b>137</b>

STATEMENT DOES NOT INCLUDE CORPORATE FUNCTIONS

Financial Section

In 1993,  
Ontario Hydro  
made an  
imperative  
and difficult  
transition  
from utility  
to service company.

## Financial Section

## FINANCIAL REVIEW AND ANALYSIS

for the year ended December 31, 1993

## FINANCIAL HIGHLIGHTS

1993 has been a year of transition for Ontario Hydro. In March of 1993, the Board of Directors of Ontario Hydro approved a wide ranging cost reduction and restructuring program. In April, a new organizational structure was approved which was designed to encourage management to take a more business-like approach. In December, Hydro's equity accounts were merged into one retained earnings account, consistent with commercial practice and to facilitate the writeoff of the one-time restructuring costs associated with the reorganization and reorientation of the Corporation.

Total revenues for the year were \$8,363 million, an increase of \$595 million over 1992. The higher revenues result mainly from an average 7.9 percent increase in the price of primary electricity sales, while the total volume of electricity sales increased slightly over 1992. Increased secondary sales and a small increase in the volume of sales to municipal customers was offset by lower sales volumes to rural retail and direct industrial customers.

Total operating costs for 1993, including financing charges but excluding the corporate restructuring charge, amounted to \$8,353 million, an \$897 million increase over 1992. The increase reflects the fixed and other costs associated with placing new facilities in service, partially offset by lower fuel costs and the impact of cost-cutting measures implemented during the year.

Ontario Hydro had net income of \$10 million for the year before the costs of corporate restructuring, compared to a net income of \$312 million in 1992. The total loss for the year, including the corporate restructuring charge of \$3,614, amounted to \$3,604 million.

Investment in fixed assets during 1993 amounted to \$2,296 million, mainly reflecting final work on the remaining two units at Darlington Nuclear Generating Station, rehabilitation work at generating stations, and construction of transmission and distribution facilities. The decrease from 1992 capital expenditures of \$3,527 million reflects lower expenditures on Darlington Nuclear Generating Station and effects of the capital and cost reduction program.

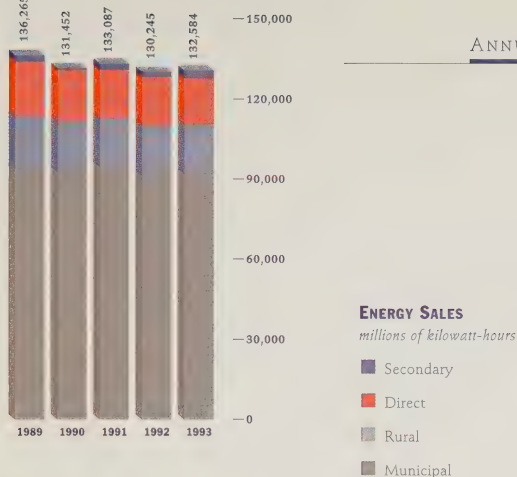
Cash provided from operations and available for investment in fixed assets decreased to \$1,332 million in 1993, from \$1,691 million in 1992. Proceeds of \$3,829 million were received from one global Canadian dollar and two United States dollar bond issues, and the issuance of short-term notes. For the year, \$5,468 million of outstanding debt was repaid, resulting in a retirement of debt for long-term financing of \$1,639 million.

## RESULTS OF OPERATIONS

**Revenues:** Primary revenues for 1993 amounted to \$8,235 million, an increase of 6.8 per cent or \$523 million over 1992, due mainly to an average 7.9 percent increase in the price of electricity in 1993.

Electricity sales to Hydro's three classes of primary customers – municipal utilities, rural retail customers





and direct industrial customers – totalled 127,777 million kilowatt-hours; a slight decrease from 1992. Slightly higher sales to municipal customers were offset by lower sales volumes to rural retail and direct industrial customers. The decrease in sales to rural retail and direct industrial customers reflected the impact of the recession.

Secondary revenues of \$128 million, mainly from exporting surplus energy to utilities in the United States, increased \$72 million in 1993 reflecting a higher availability of energy for secondary sales and a higher market demand.

**Total Operating Costs:** Ontario Hydro's total operating costs for 1993, including financing charges but excluding the provision for corporate restructuring, were \$8,353 million, \$897 million higher than in 1992.

#### *Operation, Maintenance and Administration*

As part of the cost reduction and restructuring program, Ontario Hydro announced several initiatives aimed at reducing the level of operation, maintenance and administration costs while maintaining system reliability, environmental initiatives and financial soundness.

In 1993, operation, maintenance and administration costs amounted to \$2,060 million, a decrease of \$186 million from 1992. However, excluding a \$126 million charge for staff reduction programs in 1992 and a \$49 million writeoff of Demand/Supply Plan hearings costs in 1992, operation, maintenance and administration costs decreased by \$11 million in 1993. An increase in cancelled construction projects due to the capital reduction program and the effects of placing

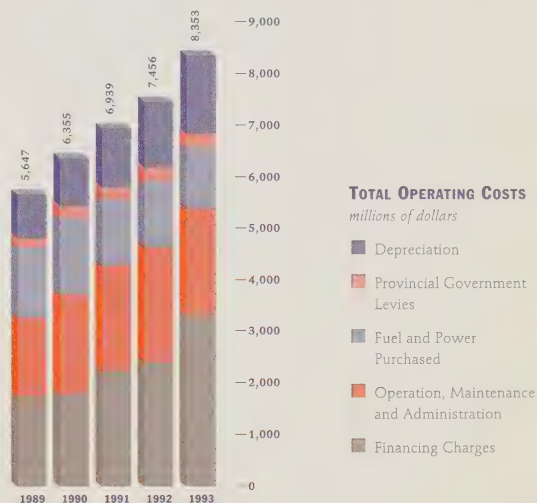
Units 1, 3 and 4 at Darlington Nuclear Generating Station in service are more than offset by the impact of the cost reduction measures implemented in 1992 and 1993.

#### *Fuel Used for Electric Generation*

The cost of fuel used for electric generation in 1993, comprising the costs for coal, uranium, oil, water rental payments other than to the Province of Ontario and the amortization of the Nuclear Agreement-Pay-back, amounted to \$911 million in 1993, a \$226 million decrease from 1992. The decrease mainly reflected an increase in lower-cost nuclear production at Darlington Nuclear Generating Station.

#### *Power Purchased*

In 1993, electricity purchases increased \$74 million over 1992 to \$260 million, as a result of a higher level of non-utility generation purchases. Ontario Hydro



purchased \$240 million of electricity from independent power producers located in Ontario and \$20 million from neighbouring utilities. Hydro also buys electricity when it is economical to do so, during periods of peak demand or in emergencies, and to manage acid gas emission levels. The Corporation's acid gas emissions



for the year were estimated at 132,000 tonnes, well within the provincial regulatory limit of 280,000 tonnes.

#### *Provincial Government Levies*

Provincial government levies totalled \$286 million in 1993, an increase of \$16 million over 1992. Ontario Hydro is required to pay to the Province of Ontario an annual debt guarantee fee of one half of one percent on the total debt guaranteed by the Province outstanding on the preceding December 31. The fee for 1993, based on debt outstanding as at December 31, 1992, is \$174 million, up \$13 million from 1992 due to higher debt outstanding.

Provincial water rental payments, related to the use of provincial waters by Ontario Hydro in the operation of its hydroelectric stations, amounted to \$112 million in 1993, an increase of \$3 million over 1992.

Ontario Hydro made other payments of approximately \$240 million to various government agencies for payments in lieu of realty taxes, provincial sales taxes, Unemployment Insurance Commission premiums, Canada Pension Plan contributions and Employer Health Tax payments.

#### *Depreciation*

Depreciation charged to operations totalled \$1,506 million in 1993, an increase of \$308 million or 25.7 percent over 1992. The increase resulted from depreciation costs related to capital additions, mainly the last three units at Darlington Nuclear Generating Station, partially offset by changes in estimates related to fixed asset removal costs.

#### *Financing Charges*

Financing charges comprise interest charged to operations and foreign exchange costs. Interest charged to operations represents gross interest reduced by capitalized interest and interest earned on investments. By capitalizing interest related to assets under construction until the assets are placed in service, Ontario Hydro equitably allocates costs between current and future customers. Foreign exchange costs mainly represent the amortization of gains or losses on the principal amount of foreign debt.

Interest and foreign exchange charged to operations rose to \$3,330 million in 1993, \$911 million or 37.7 percent higher than in 1992. The increase was mainly due

to interest charged to operations on debt related to new facilities placed in service during 1993, mainly the units at Darlington Nuclear Generating Station.

#### *Corporate Restructuring Charge and Writeoffs*

In March 1993, Ontario Hydro approved an extensive cost reduction and restructuring program, which was designed to enable Ontario Hydro to seek no rate increase in 1994 and to freeze rates in real terms for the remainder of the decade. The restructuring charge and writeoffs include one-time charges relating to the staff reduction and reorganization programs announced in April 1993, and the writeoff of certain other assets, primarily materials and supplies, fixed assets and specific real estate assets which were no longer needed.

In addition, Ontario Hydro has decided to write off and no longer seek recovery of additional amounts which, as a result of past decisions, were being carried on its balance sheet for recovery from customers in future years. In writing off these additional amounts, Ontario Hydro is adopting normal commercial practices as a result of its restructuring initiatives. Included in the asset writeoffs are \$772 million associated with the cancellation of uranium supply and power purchase contracts and \$595 million in excess of cost over market value of nuclear fuel inventory associated with the cancelled uranium supply contracts. The provision also includes \$410 million associated with the Nuclear Agreement-Payback which was previously deferred and amortized.

The restructuring charge also contains a provision of \$643 million for the writeoff of one unit at Bruce "A" Nuclear Generating Station, and costs associated with the mothballing of two units at Lennox Generating Station and two units at Lambton Generating Station, all of which have been identified as surplus to Ontario Hydro's needs.

**Net Income:** The income from operations before the corporate restructuring charge and writeoffs amounted to \$10 million in 1993, a decrease from a net income of \$312 million in 1992. The total loss for the year of \$3,604 million was higher than the \$1.6 billion forecast in the September 30, 1993 Quarterly Report due to the recognition of additional restructuring costs in the fourth quarter of 1993 relating mainly to nuclear fuel inventories, Nuclear Agreement Payback and generating facilities surplus to Hydro's needs.

**Equity:** In 1993 Ontario Hydro consolidated and reclassified its equity accounts into one retained earnings account to facilitate the writeoff of the one-time corporate restructuring costs. The accounts that were reclassified include the accumulated debt retirement appropriations, the reserve for stabilization of rates and contingencies, and contributions from the Province of Ontario. Despite a total loss for the year of \$3,604 million, Hydro begins 1994 with total equity of \$3,325 million.

**Financial Indicators:** The corporation's financial performance is monitored using two main indicators: interest coverage ratio and debt ratio.

The level of interest coverage measures the extent to which net income enables Ontario Hydro to meet its gross interest payments. An increase in the interest coverage ratio indicates a strengthening in the Corporation's financial position. The level of interest coverage based on operating income excluding the corporate restructuring charge decreased to 1.00 from 1.09 in 1992. The level of interest coverage based on the net loss for the year is 0.04, mainly due to the corporate restructuring charge.

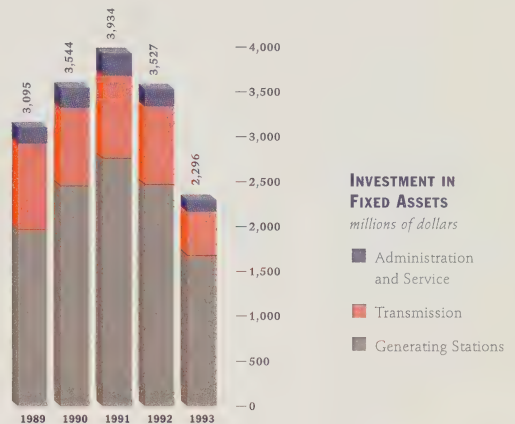
The debt ratio measures the extent to which Hydro's assets are financed by debt. A reduction in the debt ratio indicates a strengthening in financial position, as a relative increase in equity provides additional financial flexibility. The debt ratio at the end of 1993 was 0.918, an increase from the 1992 ratio of 0.841, due mainly to the net loss for the year, including the corporate restructuring charge, which was charged to the retained earnings account.

#### CAPITAL EXPENDITURES AND FINANCING

**Investment in Fixed Assets:** Ontario Hydro invests in fixed assets to maintain service and reliability and meet regulatory requirements. The total assets of the Corporation at the end of 1993 were \$44,706 million, 91.1 percent of which represented fixed assets in service or under construction. This relatively high percentage reflects the capital intensive nature of Ontario Hydro's business.

Capital expenditures for investment in fixed assets during 1993 totalled \$2,296 million. Of this amount, \$1,656 million was spent on generating facilities

with \$516 million associated with the last two units at Darlington Nuclear Generating Station. \$253 million was spent on rehabilitation of Lambton Generating Station and four units at Lakeview Generating Station, and on the installation of environmental controls at Lambton. The 1993 expenditures also reflect continued emphasis on investment in the transmission and

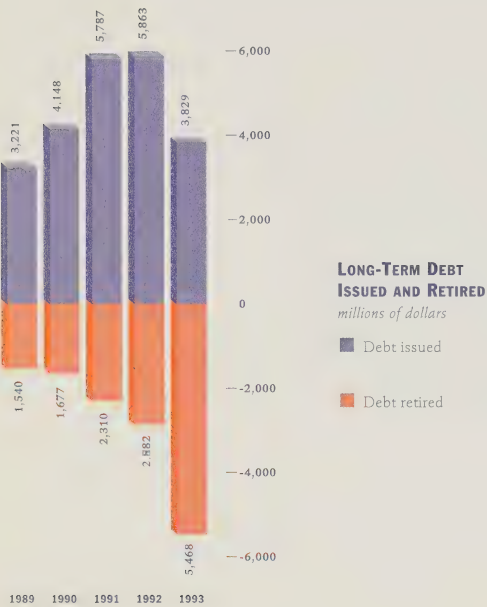


distribution facilities to maintain a high level of service and reliability. During 1993, \$488 million was invested in constructing major transmission and distribution facilities.

**Financing and Capital Markets:** The cash required by Ontario Hydro to finance its investment in fixed assets comes from two major sources: operations and financing through borrowing. Despite the loss for the year, operations still generated cash for investment in fixed assets as the majority of the corporate restructuring costs were non-cash items. For 1993, operations provided \$1,332 million in cash to finance investment in fixed assets and financing provided \$448 million. For 1992, operations provided \$1,691 million and financing provided \$1,811 million for investment in fixed assets.

Total proceeds from debt issued during the year amounted to \$3,829 million. Proceeds of \$3,025 million were received from one global Canadian dollar and

two United States dollar bond issues. These long-term debt issues have an average annual interest rate of 7.01 percent and an average term of 9.6 years. This compares to proceeds during 1992 of \$5,863 million with an average annual rate of 8.9 percent and an average term of 15 years. In 1993, proceeds of \$735 million from the issuance of short-term notes,



and \$69 million from the issuance of long-term notes were used to call and refinance certain bond issues at favourable interest rates, compared to \$759 million in 1992. Financial arrangements were also entered into so as to achieve a fixed interest rate on most of the refinanced issues.

In addition, in 1993, \$857 million was received from the sale of call options related to certain Ontario Hydro bond issues.

Debt retired in 1993 was \$5,468 million, compared with \$2,882 million in 1992. In 1993, cash amounting to \$2,846 million was used to retire maturing long-term

debt and \$2,622 million was used to retire long-term debt prior to maturity. For 1992, the amounts were \$2,123 million and \$759 million, respectively. At the end of 1993, \$411 million of long-term debt was redeemed prior to maturity and \$596 million of short-term notes were allowed to mature. This debt was reissued at the beginning of 1994. Debt amounting to \$2,193 million was redeemed at the end of 1992 and reissued in 1993.

In 1993 there was a net retirement of debt issued for long-term financing of \$1,639 million compared to net long-term debt issued in 1992 of \$2,981 million.

### OUTLOOK

Ontario Hydro has frozen electricity rates for 1994 and intends to keep rate increases over the 1995 to 2000 period at or below the rate of inflation. In order to enable Hydro to meet its commitment for no real rate increase for the balance of the decade while improving financial flexibility, Hydro initiated a cost reduction and restructuring program in 1993.

Net income is expected to range from \$600 to \$900 million over the 1994 to 1996 period primarily as a result of significantly lower staff levels, reduced capital expenditures and interest cost reduction initiatives. These reductions combined with the writeoffs taken in 1993 will have a positive impact on net income over the near term as the amortization associated with a portion of the writeoffs will no longer be charged to future years.

Capital expenditures of approximately \$2 billion are projected for 1994. As a result of the capital reductions, the estimate of capital expenditures over the longer term to 2002, has been reduced by \$24 billion from the amount of \$40 billion previously planned.

It is anticipated that, over the 1994 to 1996 period, sufficient funds will be generated from current operations to fund the capital construction program, as well as to reduce the level of outstanding debt. Gross borrowing is forecast to range from about \$2 billion to \$4 billion over 1994 to 1996. Net borrowing over this period, however, is expected to be negative with short and long-term debt expected to decline by about \$2 billion.



## MANAGEMENT REPORT

### MANAGEMENT'S RESPONSIBILITY FOR FINANCIAL REPORTING

The accompanying financial statements of Ontario Hydro are the responsibility of management and have been prepared in accordance with accounting principles generally accepted in Canada, applied on a basis consistent with that of the preceding year. The significant accounting policies followed by Ontario Hydro are described in the Summary of Significant Accounting Policies. The preparation of financial statements necessarily involves the use of estimates based on management's judgement, particularly when transactions affecting the current accounting period cannot be finalized with certainty until future periods. The financial statements have been properly prepared within reasonable limits of materiality and in light of information available up to March 14, 1994. The information presented elsewhere in the Annual Report is consistent with that in the financial statements.

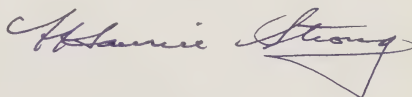
Management maintains a system of internal controls designed to provide reasonable assurance that the assets are safeguarded and that reliable financial information is available on a timely basis. The system includes formal policies and procedures and an organizational structure that provides for appropriate delegation of authority and segregation of responsibilities. An internal audit function independently evaluates the effectiveness of these internal controls on an ongoing basis and reports its findings to management and the Audit Committee of the Board of Directors.

The financial statements have been examined by Ernst & Young, independent external auditors appointed by the Lieutenant-Governor-in-Council of Ontario. The external auditors' responsibility is to express their

opinion on whether the financial statements are fairly presented in accordance with generally accepted accounting principles. The Auditors' Report, which appears below, outlines the scope of their examination and their opinion.

The Board of Directors, through the Audit Committee, is responsible for ensuring that management fulfils its responsibilities for financial reporting and internal controls. The Audit Committee meets periodically with management, the internal auditors and the external auditors to satisfy itself that each group has properly discharged its respective responsibility, and to review the financial statements before recommending approval by the Board of Directors. The external auditors have direct and full access to the Audit Committee with and without the presence of management, to discuss their audit and their findings as to the integrity of Ontario Hydro's financial reporting and the effectiveness of the system of internal controls.

On behalf of Management,



Chairman, Board of Directors  
and Chief Executive Officer



Senior Vice President and Chief Financial Officer

Toronto, Canada,  
March 14, 1994

## AUDITORS' REPORT

*To the Board of Directors of Ontario Hydro:*

We have audited the statement of financial position of Ontario Hydro as at December 31, 1993 and the statements of operations and source of cash used for investment in fixed assets for the year then ended. These financial statements are the responsibility of Ontario Hydro's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with generally accepted auditing standards. Those standards require that we plan and perform an audit to obtain reasonable assurance whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also

includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

In our opinion, these financial statements present fairly, in all material respects, the financial position of Ontario Hydro as at December 31, 1993 and the results of its operations and the changes in its financial position for the year then ended in accordance with generally accepted accounting principles.

The signature is written in a dark blue ink in a cursive, handwritten style. It reads "Ernst & Young".

Chartered Accountants

Toronto, Canada,  
March 14, 1994

## FINANCIAL STATEMENTS

for the Year Ended December 31, 1993

### SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The accompanying financial statements have been prepared in accordance with accounting principles generally accepted in Canada, applied on a basis consistent with that of the preceding year. The significant accounting policies followed by Ontario Hydro are described below.

**Rate setting:** Ontario Hydro has broad powers to generate, supply and deliver electric power throughout the Province of Ontario. The Corporation operates under the Power Corporation Act and is subject to provisions of the Ontario Energy Board Act.

Under the provisions of the Power Corporation Act, the price payable by municipal and other customers for power is the cost of supplying the power. Such cost is defined in the Act to include the cost of operating and maintaining the system, the cost of energy conservation programs, depreciation, interest, and the amounts for debt retirement and stabilization of rates and contingencies. The amounts for debt retirement and stabilization of rates and contingencies are accounted for as net income. In 1993, Ontario Hydro consolidated the accumulated amounts collected for debt retirement and stabilization of rates and contingencies into one retained earnings account (see note 14).

Under the provisions of the Ontario Energy Board Act, a public hearing before the Ontario Energy Board is required to review any changes in electricity rates proposed by Ontario Hydro which affect its municipal utilities, direct industrial customers, or, if the Minister of Energy so directs, rural retail customers. The Ontario Energy Board then submits its recommendations to the Minister of Environment and Energy. After considering the recommendations of the Ontario Energy Board, Ontario Hydro's Board of Directors, under the authority of the Power Corporation Act, establishes the electricity rates to be charged to customers.

The Board of Directors may specify that an amount related to an item be included in electricity rates of a period which differs from the period in which it would be recognized under generally accepted accounting principles for enterprises operating in a non-rate-regulated environment. If so, the accounting treatment

given the item is the same as its treatment for rate-setting purposes. This authority of the Board of Directors may be used in respect of a specific transaction or an accounting policy.

The Board of Directors has confirmed that Ontario Hydro's accounting policies relating to discounts and premiums arising from the acquisition of debt prior to maturity and foreign exchange gains and losses on short-term replacement financing denominated in United States dollars continue to be appropriate. Under generally accepted accounting principles for enterprises operating in a non-rate-regulated environment these amounts would be included as gains or losses of the current period.

**Fixed assets:** Fixed assets in service include operating facilities and non-operating reserve facilities. Construction in progress includes fixed assets under construction and heavy water held for use in nuclear generating stations.

Fixed assets are capitalized at cost which comprises material, labour, engineering costs, overheads, depreciation on service equipment, interest applicable to capital construction activities, and for new facilities, the costs of training initial operating staff. In the case of generating facilities, the cost also includes the net cost of commissioning which comprises the cost of start-up less the value attributed to energy produced by generation facilities during their commissioning period. For multi-unit facilities, a proportionate share of the cost of common facilities is placed in service with each major operating unit. The cost of heavy water comprises the direct cost of production and applicable overheads, as well as interest and depreciation on the heavy water production facilities and the estimated removal costs of these facilities. Leases which transfer the benefits and risks of ownership of assets to Ontario Hydro are capitalized.

Interest is capitalized on construction in progress at rates (1993-9.8 percent, 1992-10.7 per cent) which approximate the average cost of long-term funds borrowed in the years in which expenditures have been made for fixed assets under construction. If the construction period of a project is extended and the construction activities are continued, interest is capitalized during the period of extension provided that the project has a reasonable expectation of being completed.



If a project is cancelled or deferred indefinitely with a low probability of resuming construction, all costs, including the costs of cancellation, are written off to operations.

If fixed assets are removed from operations and mothballed for future use, termed non-operating reserve facilities, the costs of mothballing are charged to operations.

**Depreciation:** The capital costs of fixed assets in service are depreciated on a straight-line basis. Depreciation rates for the various classes of assets are based on their estimated service lives. Major components of fossil and nuclear generating stations are depreciated over the lesser of the service life expectancy of the major component or the remaining service life of the associated generating station; for hydroelectric generating stations, major components are depreciated over the service life expectancy of the component, ranging from 25 to 100 years. The estimated service lives of assets in the major classes are:

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**Generating stations:**

– fossil	– 40 years
– nuclear	– 40 years

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**Heavy water:**

– over the period ending in the year 2040
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**Transmission and distribution facilities:**

– 10 to 100 years
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**Heavy water production facilities:**

– 12 years
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**Administration and service facilities:**

– 5 to 65 years
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In accordance with group depreciation practices, for normal retirements the cost of fixed assets retired is charged to accumulated depreciation with no gain or loss reflected in operations. However, gains and losses on sales of fixed assets and losses on premature retirements are charged to operations in the year incurred as adjustments to depreciation expense.

When the costs of removal less residual value, termed removal costs, on retirements of fixed assets can reasonably be estimated and are significant, provisions for these costs, except for those related to heavy water production facilities, are charged to depreciation expense on an annuity basis over the remaining service life of the related fixed assets. For heavy water production facilities, provisions for removal costs are charged to heavy water production costs on a straight-line basis over the remaining service life of the related facilities. Removal costs that are provided for include the estimated costs of decommissioning nuclear and fossil stations and heavy water production facilities, and the estimated costs of removing certain nuclear reactor fuel channels. Other removal costs are charged to depreciation expense as incurred.

The estimated service lives of fixed assets and the significant assumptions underlying the estimates of fixed asset removal costs are subject to periodic review. Any changes arising out of such a review are implemented on a remaining service life basis from the year the changes can first be reflected in electricity prices.

Non-operating reserve facilities are amortized so that any estimated loss in value is charged to depreciation expense on a straight-line basis over their expected non-operating period.

**Fuel for electric generation:** Fuel used for electric generation comprises the average inventory costs of fuel consumed, the value attributed to commissioning energy produced, and provisions for disposal of nuclear fuel used during the period. The inventory cost of fuel consumed comprises fuel purchases, transportation and handling costs.

The value attributed to commissioning energy produced during the period represents the incremental operating and fuel costs of producing the same quantity of energy at generating units displaced because of the commissioning activity. The costs for disposal of nuclear fuel

used in each period are charged to operations based on estimated future expenditures and interest accumulating to the estimated date of disposal. Estimates of expenditures, interest and escalation rates, and the date of disposal are subject to periodic review. Adjustments resulting from changes in estimates are charged to operations on an annuity basis over the period from the year the changes can first be reflected in electricity prices to the estimated in service date of the disposal facility.

**Foreign currency translation:** Current monetary assets and liabilities in foreign currencies are translated to Canadian currency at year-end rates of exchange and the resultant exchange gains or losses are credited or charged to operations. Long-term debt payable in foreign currencies is translated to Canadian currency at year-end rates of exchange. Resulting unrealized exchange gains or losses are deferred and included in deferred debt costs, and are amortized to operations on an annuity basis over the remaining life of the related debt.

Foreign exchange gains or losses on hedges of long-term debt payable in foreign currencies are deferred and included in deferred debt costs. The deferred gains or losses on hedges are amortized to operations in the periods the hedges provide benefit.

Foreign exchange gains or losses on early redemption of long-term debt, including subsequent gains and losses on short-term replacement financing, are deferred and included in deferred debt costs if the exposure in the foreign currency related to the redeemed debt is continued by refinancing the redeemed debt in the same currency. These deferred gains or losses are amortized on an annuity basis over the period to the original maturity date of the redeemed debt. If the foreign currency exposure is reduced as a result of the early redemption of debt, the resulting foreign exchange gains or losses related to the redeemed debt are credited or charged to operations.

**Deferred debt costs:** Deferred debt costs include the unamortized amounts related to unrealized foreign exchange gains or losses resulting from the translation of foreign currency long-term debt; deferred foreign exchange gains or losses on hedges; deferred foreign exchange gains or losses on the early redemption of long-term debt; discounts or premiums arising from

the issuance of debt or the acquisition of debt prior to maturity; and discounts or premiums accrued on foreign currency hedges.

Discounts or premiums arising from the issuance of debt are amortized over the period to maturity of the debt. Discounts or premiums on debt acquired prior to the date of maturity are amortized over the period from the acquisition date to the original maturity date of the debt. Discounts or premiums on foreign currency hedges are credited or charged to operations over the terms of the individual hedges.

**Demand management:** Demand management activities undertaken by Ontario Hydro encourage customers to conserve or use electricity more efficiently. Demand management costs that have reasonably assured and specifically identifiable future benefits to Ontario Hydro are deferred and amortized to operations on a straight-line basis over the periods that benefit. All other costs are charged to operations as incurred. The benefit periods of deferred demand management costs are subject to periodic review. Any changes arising out of such a review are implemented on a remaining benefit period basis from the year the changes can first be reflected in electricity prices.

**Nuclear agreement-payback:** Ontario Hydro, Atomic Energy of Canada Limited and the Province of Ontario are parties to a joint undertaking for the construction and operation of Units 1 and 2 of the Pickering Nuclear Generating Station, with ownership of these units being vested in Ontario Hydro. Contributions to the capital cost by Atomic Energy of Canada Limited and the Province of Ontario amounted to \$258 million and these have been deducted in arriving at the value of fixed assets in service in respect of Pickering Units 1 and 2. Ontario Hydro is required to make monthly payments, termed "payback", until the year 2003 to each of the parties in proportion to their capital contributions. Payback, in a broad sense, represents the net operational advantage of having the power generated by Pickering Units 1 and 2, compared with power generated by coal-fired units similar to Lambton Units 1 and 2. Payback is charged to the cost of operations and included in fuel used for electric generation.

During the 1983 through 1988 shutdown period for replacement of pressure tubes in Pickering Units 1 and 2, the payback calculations resulted in negative payback

amounts. These amounts were credited against the cost of operations over the shutdown period and the accumulated amounts, plus interest, were included in the accounts as long-term accounts receivable. In 1992, due to uncertainty regarding future value, Ontario Hydro provided for orderly recovery by amortizing this asset to operations on a straight-line basis over the remaining term of the Agreement. This amortization became the Payback amount charged to the cost of operations. In 1993, the Corporation wrote off this asset as part of the provision for corporate restructuring, consistent with its treatment of other deferred costs (see note 5).

**Pension plan:** The pension plan is a contributory, defined benefit plan covering all regular employees of

Ontario Hydro. Pension costs for accounting purposes are actuarially determined based on the assumptions that reflect management's best estimate of the effect of future events on the actuarial present value of accrued pension benefits, and the valuation of pension plan assets using a five-year market value average. Pension plan surpluses and deficiencies are amortized on an annuity basis over the expected average remaining period of service of the employees covered by Ontario Hydro's pension plan.

**Research and development:** Research and development costs are charged to operations in the year incurred, except for those related directly to the design or construction of a specific capital facility which are capitalized as part of the cost of the facility.



**STATEMENT OF OPERATIONS***for the year ended December 31 (millions of dollars)*

<b>REVENUES</b>	<b>1993</b>	<b>1992</b>
Primary power and energy		
Municipal utilities	5,721	5,281
Rural retail customers	1,641	1,568
Direct industrial customers	873	863
	8,235	7,712
Secondary power and energy (note 1)	128	56
	8,363	7,768
<b>COSTS</b>		
Operation, maintenance and administration	2,060	2,246
Fuel used for electric generation	911	1,137
Power purchased	260	186
Provincial government levies (note 2)	286	270
Depreciation (note 3)	1,506	1,198
	5,023	5,037
<b>INCOME BEFORE FINANCING CHARGES</b>	<b>3,340</b>	<b>2,731</b>
Financing charges (note 4)	3,330	2,419
<b>INCOME BEFORE CORPORATE RESTRUCTURING CHARGE AND WRITEOFFS</b>	<b>10</b>	<b>312</b>
Corporate restructuring charge and writeoffs (note 5)	3,614	—
<b>NET INCOME (LOSS)</b>	<b>(3,604)</b>	<b>312</b>

See accompanying summary of significant accounting policies and notes to financial statements.

**STATEMENT OF FINANCIAL POSITION***as at December 31 (millions of dollars)*

<b>ASSETS</b>	1993	1992
<b>Fixed assets</b> (notes 5 and 6)		
Fixed assets in service	46,978	39,997
Less accumulated depreciation	9,838	9,615
	37,140	30,382
Construction in progress	3,600	10,308
	40,740	40,690
 <b>Current assets</b>		
Accounts receivable	1,207	1,032
Fuel for electric generation (notes 5 and 7)	662	1,345
Materials and supplies, at cost (note 5)	283	351
	2,152	2,728
 <b>Other assets</b>		
Deferred debt costs	828	777
Deferred pension costs (note 16)	208	535
Deferred demand management costs	360	227
Other deferred costs (notes 5 and 8)	—	855
Long-term accounts receivable and other assets	418	859
	1,814	3,253
	44,706	46,671

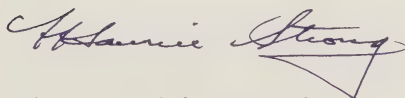
See accompanying summary of significant accounting policies and notes to financial statements.

LIABILITIES	1993	1992
Long-term debt (note 9)	31,848	31,238
<b>Current liabilities</b>		
Bank indebtedness (note 10)	615	635
Accounts payable and accrued charges	1,736	1,202
Short-term notes payable (note 11)	1,109	898
Accrued interest	979	951
Long-term debt payable within one year (note 9)	1,837	2,796
	6,276	6,482
<b>Other liabilities</b>		
Unamortized option premiums (note 9)	853	—
Long-term accounts payable and accrued charges	631	503
Accrued fixed asset removal and used nuclear fuel disposal costs (note 12)	1,773	1,517
	3,257	2,020

**CONTINGENCIES** (note 13)**EQUITY**

Retained earnings (note 14)	3,325	6,931
	44,706	46,671

On behalf of the Board,



Chairman, Board of Directors and  
Chief Executive Officer



President and Chief  
Operating Officer

Toronto, Canada,  
March 14, 1994



**STATEMENT OF SOURCE OF CASH USED FOR INVESTMENT IN FIXED ASSETS***for the year ended December 31 (millions of dollars)*

	1993	1992
<b>Cash provided from operations</b>		
Net income (loss)	(3,604)	312
Items not requiring cash in the current year		
Depreciation	1,506	1,198
Provision for corporate restructuring and writeoffs	2,916	—
Amortization of foreign exchange gains and losses	41	59
Provision for used nuclear fuel disposal costs	71	42
Other	191	29
	1,121	1,640
Changes in non-cash working capital and long-term accounts payable affecting operations—decrease (note 15)	211	51
Cash provided from operations	1,332	1,691
<b>Cash provided from financing</b>		
Debt for long-term financing		
Issued	3,829	5,863
Retired	(5,468)	(2,882)
	(1,639)	2,981
Redemption of long-term debt, net of reissuances	1,186	(1,197)
Cash received from sale of options	857	—
Changes in cash and cash equivalents		
Bank indebtedness—(decrease)	(20)	(6)
Short-term notes used for cash management—increase	64	33
	44	27
Cash provided from financing	448	1,811
<b>Cash provided from operations and financing</b>	1,780	3,502
Cash provided from (used for) other assets	91	(127)
<b>Cash used for investment in fixed assets (note 15)</b>	1,871	3,375

See accompanying summary of significant accounting policies and notes to financial statements.

## NOTES TO FINANCIAL STATEMENTS

### 1. SECONDARY POWER AND ENERGY

Secondary power and energy revenues include \$125 million (1992 – \$53 million) from sales of electricity to United States utilities.

### 2. PROVINCIAL GOVERNMENT LEVIES *millions of dollars*

	1993	1992
Provincial water rentals	112	109
Provincial debt guarantee fee	174	161
	<b>286</b>	<b>270</b>

Provincial water rentals are the amounts paid to the Province of Ontario for the use of water for hydroelectric generation. The Province of Ontario has legislated that Ontario Hydro pay to the Province an annual debt guarantee fee of one half of one percent on the total debt guaranteed by the Province, outstanding as of the preceding December 31.

### 3. DEPRECIATION *millions of dollars*

	1993	1992
Depreciation of fixed assets in service	1,369	1,068
Amortization of other deferred costs	39	39
Amortization of deferred demand management costs	22	13
Fixed asset removal costs	158	101
Other removal costs	46	105
	<b>1,634</b>	<b>1,326</b>
Less:		
Depreciation charged to – construction in progress	75	74
– heavy water production	49	50
– fuel for electric generation	1	1
Other	3	3
	<b>128</b>	<b>128</b>
	<b>1,506</b>	<b>1,198</b>

### 4. FINANCING CHARGES *millions of dollars*

	1993	1992
Interest on bonds, notes and other debt – long-term	3,693	3,636
– short-term	48	22
Interest on accrued fixed asset removal and used nuclear fuel disposal costs	108	124
	<b>3,849</b>	<b>3,782</b>
Less:		
Interest charged to – construction in progress	398	1,167
– heavy water production	48	55
– fuel for electric generation	7	9
Interest earned on investments	74	119
	<b>527</b>	<b>1,350</b>
Interest charged to operations	<b>3,322</b>	<b>2,432</b>
Foreign exchange	8	(13)
	<b>3,330</b>	<b>2,419</b>

**5. CORPORATE RESTRUCTURING CHARGE AND WRITEOFFS** *millions of dollars*

	1993
Staff reduction programs	624
Staff relocation and reorganization	124
Excess materials and surplus real estate	232
Other deferred costs (note 8)	772
Write-down of nuclear fuel inventories	595
Nuclear Agreement-Payback	410
Excess capacity provision	643
Other restructuring costs	214
	<b>3,614</b>

In March 1993, the Board of Directors of Ontario Hydro approved an extensive cost-reduction and restructuring program, which was designed to enable Ontario Hydro to seek no rate increase in 1994 and to freeze rates in real terms for the remainder of the decade. The restructuring program resulted in a number of charges and writeoffs to net income in 1993.

The charge includes costs directly related to the restructuring including costs associated with a staff reduction program which resulted in the voluntary departure of about 5,000 regular employees. This is in addition to approximately 4,000 contract employees who left during the year and 1,500 regular employees who left under the voluntary programs announced in September 1992. The staff reduction program together with reorganization undertaken as part of the restructuring has also resulted in costs for staff, office and equipment relocations. In addition, the Corporation also identified certain assets, primarily materials and supplies and fixed assets, and specific real estate assets which were no longer needed as a result of the restructuring.

Ontario Hydro has decided to write off and no longer seek recovery of additional amounts which, as a result of past decisions, were being carried on its balance sheet for recovery from customers in future years. Included in the charge are "Other deferred costs" relating to the cancellation of the long-term uranium supply and power purchase contracts (see note 8).

Consistent with the write off of the other deferred costs, the excess of cost over market value in the nuclear fuel inventories and in the future deliveries of fuel associated with the cancelled uranium supply contracts, has been provided for.

The Nuclear Agreement-Payback amount represents accumulated negative payback amounts as a result of the shutdown of Pickering Nuclear Generating Station Units 1 and 2 over the 1983 through 1988 period for replacement of pressure tubes. Due to the uncertainty regarding the future value of this asset, it was being amortized to operations on a straight-line basis. Consistent with the treatment of the other amounts previously deferred and amortized, this amount is being written off.

Ontario Hydro has decided to mothball or shutdown 2,850 megawatts (MW) of surplus generating capacity including two coal fuelled units at Lambton Generating Station, two oil fuelled units at Lennox Generating Station and Unit 2 at Bruce "A" Nuclear Generating Station. This is in addition to four coal fuelled units representing 1,092 MW at Lakeview Generating Station mothballed in January and April of 1993. The amount included in the corporate restructuring charge reflects a provision for the writeoff of the four Lakeview units and Bruce Unit 2, and mothballing costs for the Lennox and Lambton units. The Bruce Unit 2 writeoff includes the Unit's estimated net book value at September 1993, the expected time of shutdown, and estimated decommissioning costs reduced by the Unit's accumulated retubing provision. Also included in the provision are staff reduction costs for all units which will be removed from service and the write off of related construction projects.



**6. FIXED ASSETS** *millions of dollars*

	1993			1992		
	<i>Fixed Assets in Service</i>	<i>Accumulated Depreciation</i>	<i>Construction in Progress</i>	<i>Fixed Assets in Service</i>	<i>Accumulated Depreciation</i>	<i>Construction in Progress</i>
Generating stations						
–hydroelectric	2,351	769	589	2,229	739	559
–fossil	4,774	1,900	507	4,453	1,839	783
–nuclear	24,322	3,422	457	17,836	2,969	6,777
Heavy water	4,040	515	1,316	3,308	444	1,334
Transmission and distribution	9,686	2,357	686	9,151	2,158	794
Heavy water production facilities	–	–	–	1,063	612	–
Administration & service facilities	1,805	875	45	1,957	854	61
	<b>46,978</b>	<b>9,838</b>	<b>3,600</b>	<b>39,997</b>	<b>9,615</b>	<b>10,308</b>

**Darlington Nuclear Generating Station.** The two remaining units at Darlington, Units 3 and 4, were declared in service for commercial operation in February 1993 and June 1993, respectively.

**Heavy water.** As at December 31, 1993, Ontario Hydro terminated the production of heavy water for its own use, as there was sufficient heavy water on hand to meet future needs of its existing generating stations. This heavy water is shown as construction in progress as at December 31, 1993. Any quantities of heavy water produced in the future will be for sales to external parties. Accordingly, the heavy water production facilities have been fully depreciated and included in the cost of heavy water construction in progress.

**7. FUEL FOR ELECTRIC GENERATION** *millions of dollars*

	1993	1992
Inventories –uranium (note 5)	199	725
–coal	371	525
–oil	92	95
	<b>662</b>	<b>1,345</b>

**8. OTHER DEFERRED COSTS** *millions of dollars*

	1993	1992
Bruce Heavy Water Plant "D"	–	37
Wesleyville Generating Station	–	2
Coal purchase agreement	–	17
Denison Mines Limited uranium supply contract	–	242
Rio Algom Limited uranium supply contract	–	448
Manitoba Hydro power purchase contract	–	109
	<b>–</b>	<b>855</b>

Other deferred costs are amounts that the Board of Directors, under its rate setting authority, had determined be deferred and amortized for recovery through electricity rates on a straight-line basis over a specified period of years. In 1993, \$39 million and \$44 million (1992–\$39 million and \$73 million) of other deferred costs were charged to depreciation, and fuel used for electric generation, respectively.

In January 1994, as part of the Corporation's restructuring program, the Board of Directors approved a recommendation to no longer seek recovery of these costs through electricity rates. Accordingly, the balance of these costs, \$772 million, was written off at December 31, 1993 (see note 5).

**9. LONG-TERM DEBT** *millions of dollars*

	1993	1992
Bonds and notes payable	33,645	33,994
Other long-term debt	40	40
	33,685	34,034
Less payable within one year	1,837	2,796
	31,848	31,238

Bonds and notes payable, expressed in Canadian dollars, are summarized by years of maturity and by the currency in which they are payable in the following table:

Years of Maturity	1993			1992	
	Principal Outstanding			Principal Outstanding Total	Weighted Average Interest Rate (percent)
	Canadian	Foreign	Total		
1993	—	—	—	2,794	
1994	1,192	643	1,835	1,746	
1995	1,855	842	2,697	2,388	
1996	2,309	151	2,460	2,465	
1997	1,056	—	1,056	1,057	
1998	2,591	662	3,253	—	
1–5 years	9,003	2,298	11,301	10,450	10.6
6–10 years	9,123	795	9,918	10,762	10.0
11–15 years	2,547	—	2,547	2,390	9.7
16–20 years	2,191	2,714	4,905	5,173	11.1
21–25 years	648	—	648	844	10.5
26 years and over	4,326	—	4,326	4,375	10.1
	27,838	5,807	33,645	33,994	10.3

**Currency in which payable**

Canadian dollars	27,838	27,917
United States dollars	5,673	5,947
Swiss francs	134	130
	33,645	33,994

Bonds and notes payable are either held, or guaranteed as to principal and interest, by the Province of Ontario.

Bonds and notes payable in United States dollars include \$2,052 million (1992–\$4,013 million) of Ontario Hydro bonds held by the Province of Ontario and having terms identical with Province of Ontario issues sold in the United States on behalf of Ontario Hydro.

**Option contracts.** Ontario Hydro has converted future potential interest savings related to call options embedded in certain of its bonds to cash, by selling offsetting option contracts. The option contracts sold give holders the right to be paid an interest rate equal to the bonds' coupon rate, effective as at the call date. Premiums received from the sale of these contracts are being amortized to income, as a reduction of interest expense, over the remaining terms of the related bond issues. Option contracts with notional principal amounts of Cdn\$2,628 million and US\$1,043 million were outstanding as at December 31, 1993.

Ontario Hydro has entered into various financial arrangements to hedge a portion of its foreign currency exposure.

**9. LONG-TERM DEBT** *continued*

**Forward exchange contracts.** Forward exchange contracts hedging US dollar principal and interest payments totalled US\$1,128 million as at December 31, 1993 (1992–US\$1,274 million) and had a weighted average Canadian dollar exchange rate of 1.26 (1992–1.26). US\$822 million hedge principal and interest payments due in 1994 and the remaining US\$306 million hedge payments due over the period 1995 through 1998. In addition, Ontario Hydro has entered into forward exchange contracts to hedge the exposure related to some future US dollar revenues. As at December 31, 1993 such forward exchange contracts amounted to US\$185 million and had a weighted average Canadian dollar exchange rate of 1.35. US\$3 million of these contracts hedge revenues expected in 1994 and the remaining US\$182 million hedge revenues expected over the period 1995 through 1998.

**Foreign currency swap contracts.** Foreign currency swap contracts to hedge US\$777 million and Swiss franc 239 million of principal and interest payments into Canadian dollars were outstanding as at December 31, 1993 (1992–US\$837 million and Swiss franc 250 million). Of this, US\$60 million and Swiss franc 11 million are due in 1994, and US\$717 million and Swiss franc 228 million are due over the period 1995 to 2001.

**10. BANK INDEBTEDNESS**

Short-term bank lines of credit are available to Ontario Hydro in the amount of \$600 million (1992–\$600 million), of which \$575 million was utilized at year end (1992–\$590 million). The lines of credit are unsecured and bear interest at less than the prime rate.

**11. SHORT-TERM NOTES PAYABLE** *millions of dollars*

	1993	1992
Short-term notes used for cash management	191	127
Short-term notes used for long-term financing	918	771
	<b>1,109</b>	<b>898</b>

Certain bond issues were called and refinanced at favourable interest rates by issuing short-term notes. Financial arrangements were also entered into so as to achieve a fixed interest rate on most of the refinanced issues.

**12. ACCRUED FIXED ASSET REMOVAL & USED NUCLEAR FUEL DISPOSAL COSTS** *millions of dollars*

	1993	1992
Accrued fixed asset removal costs		
– accrued decommissioning costs	588	447
– accrued fuel channel removal costs	394	374
	<b>982</b>	<b>821</b>
Accrued used nuclear fuel disposal costs	791	696
	<b>1,773</b>	<b>1,517</b>

**Fixed asset removal costs.** Fixed asset removal costs are the costs of decommissioning nuclear and fossil generating stations and heavy water production facilities after the end of their service lives, and the costs of removing certain fuel channels which are expected to be replaced during the life of the nuclear reactors. The significant assumptions used in estimating fixed asset removal costs were:

- decommissioning of nuclear generating stations in the 2042 to 2062 period on a deferred dismantlement basis (dismantlement following storage with surveillance for a 30-year period after shutdown of the reactors), and a transportation distance of 1,000 kilometres from nuclear generating facilities to disposal facilities;
- dismantlement of Bruce Heavy Water Plants “A”, “B” and “D” in the 1994 to 2005 period;
- interest rates through to 2065 ranging from 9% to 10% (1992–9% to 11%);
- escalation rates through to 2065 ranging from 3% to 7% (1992–4% to 7%); and



**12. ACCRUED FIXED ASSET REMOVAL & USED NUCLEAR FUEL DISPOSAL COSTS** *continued*

- removal of fuel channels in nuclear generating stations during the following periods (1992 comparative in brackets)

Bruce "A"	1994 to 2007 (1993 to 1999)
Pickering "B"	2009 to 2016 (2012 to 2017)
Bruce "B"	2011 to 2019 (2014 to 2019)
Darlington	2016 to 2024 (2019 to 2024).

Because of possible changes to the above factors and the methods used for decommissioning and fuel channel removal, these costs are subject to revision. In 1993, as part of the cost reduction and restructuring program, the commitment to retube Bruce "A" Nuclear Generating Station was suspended. In February 1994, Ontario Hydro decided to shutdown Unit 2 at Bruce "A" Nuclear Generating Station in 1995. The accumulated fixed asset removal provision relating to the retubing of Unit 2 was used to reduce the amount relating to the shutdown of Unit 2 charged to the corporate restructuring provision.

**Used nuclear fuel disposal costs.** The significant assumptions used in estimating the future used nuclear fuel disposal costs were:

- an in-service date of the year 2025 (1992–2025) for used nuclear fuel disposal facilities;
- a transportation distance of 1,000 kilometres from nuclear generating facilities to disposal facilities;
- interest rates through to the disposal date ranging from 9% to 10% (1992–9% to 11%); and
- escalation rates through to the disposal date ranging from 3% to 7% (1992–4% to 7%).

Because of the uncertainties associated with the technology of disposal and the above factors, these costs are subject to change.

**13. CONTINGENCIES****Manitoba Hydro**

In December 1992, due to a projected surplus in generating capacity, Ontario Hydro exercised its right to terminate its long-term power purchase contract with Manitoba Hydro. In Manitoba Hydro's certificate of costs for reimbursement, an amount for \$49 million was claimed for costs incurred by Manitoba Hydro prior to entering into the contract with Ontario Hydro on December 7, 1989. Ontario Hydro is of the opinion that costs incurred by Manitoba Hydro before December 7, 1989 are not reimbursable by Ontario Hydro under the contract. As well, based on a review of the certificate of costs, it appears that the total cost claimed by Manitoba Hydro may have been overstated. Ontario Hydro has commenced an action against Manitoba Hydro for a declaration that Ontario Hydro is not obliged to pay costs incurred prior to entering into the contract and for a further judgement against Manitoba Hydro requiring the repayment of amounts which were improperly claimed by Manitoba Hydro and paid by Ontario Hydro under the contract. At this time, the outcome of the action is not determinable, and as such, no provision has been accrued in Ontario Hydro's financial statements with respect to any amounts in dispute.

**14. RETAINED EARNINGS** *millions of dollars*

	1993	1992
Balance at beginning of year	6,931	6,619
Net income (loss)	(3,604)	312
Net refunds on annexation by municipalities	(2)	—
Balance at end of year	3,325	6,931

In 1993, Ontario Hydro consolidated and reclassified its three equity accounts into one retained earnings account. The accounts that were reclassified include the accumulated debt retirement appropriation, the reserve for stabilization of rates and contingencies, and contributions from the Province of Ontario as assistance for rural construction.

**15. STATEMENT OF SOURCE OF CASH USED FOR INVESTMENT IN FIXED ASSETS** *millions of dollars*

Cash provided from financing represents the amount of cash provided from the issuance of long-term debt and the issuance of short-term notes used for long-term financing, less the amount of cash used to retire or redeem long-term debt, and the effects of changes in cash and cash equivalents. Cash and cash equivalents are defined to be cash and short-term investments less bank indebtedness and short-term notes used for cash management.

The changes in non-cash working capital and long-term accounts payable affecting operations consisted of the following:

	1993	1992
Accounts receivable – (increase)	(175)	(113)
Fuel for electric generation – decrease (increase)	286	(3)
Materials and supplies – (increase) decrease	(7)	51
Accounts payable and accrued charges – increase	43	188
Accrued interest – increase	28	6
Long-term accounts payable and accrued charges – increase (decrease)	36	(78)
	211	51

The reconciliation of the change in fixed assets during the year with the investment in fixed assets and cash used for investment in fixed assets is shown below:

	1993	1992
Change in fixed assets	50	2,520
Depreciation of fixed assets in service	1,369	1,068
Depreciation charged to heavy water production and construction in progress	(124)	(124)
Net book value of fixed assets sold or retired	1,001	63
Investment in fixed assets	2,296	3,527
Changes in accounts payable and accrued charges affecting investment in fixed assets – (increase)	(425)	(152)
Cash used for investment in fixed assets	1,871	3,375

**16. BENEFIT PLANS**

Ontario Hydro's employee benefit programs include the pension plan, the group life insurance plan and the long-term disability plan.

**Pension plan.** Regular pension costs for 1993 were \$161 million (1992 – \$161 million). In 1993, \$106 million (1992 – \$106 million) of the pension costs were charged to operations and \$55 million (1992 – \$55 million) were capitalized. In addition, included in the corporate restructuring charge are costs of \$327 million associated with the voluntary staff reduction program. The pension costs for 1993 were actuarially determined for accounting purposes using the following significant assumptions which take into consideration the long-term nature of the pension plan:

- rate used to discount future pension benefits – 6.50% (1992 – 7.00%);
- rate used to estimate interest cost – 6.50% (1992 – 7.00%);
- rate used to estimate return on investments – 8.75% (1992 – 9.00%);
- salary schedule escalation rate – 3.50% (1992 – 4.00%);
- average long-term rate used to estimate improvements in pension benefits to partially offset the effect of increase in cost of living – 2.44% (1992 – 2.81%); and
- average remaining service period of employees – 17 years (1992 – 17 years).

**16. BENEFIT PLANS** *continued*

Based on these assumptions, the actuarial present value of the accrued pension benefits is estimated to be \$7,201 million as at December 31, 1993 (1992 – \$6,386 million), and the pension plan assets available for these benefits were \$6,317 million (1992 – \$5,748 million) based on a five-year market value average.

Deferred pension costs on the statement of financial position represent the cumulative difference between the funding contributions, including special payments, and pension costs. As at December 31, 1993, the deferred pension costs amounted to \$208 million (1992 – \$535 million) and primarily reflect special payments made in 1990 and 1991 relating to past service benefit improvements offset by costs associated with the 1993 voluntary staff reduction program. The costs of pension benefit improvements funded by the special payments are being amortized as a charge to pension costs over the average remaining service period of employees.

**Group life insurance plan.** Ontario Hydro paid \$5 million in premiums for basic insurance coverage for employees. Premiums for additional coverage, if requested, are paid for by the employees.

**Group health care plan.** Ontario Hydro provides a group health care plan to its employees. In 1993, the cost of providing these benefits was \$63 million (1992 – \$51 million).

**Other post-employment benefits.** In addition to pension benefits, Ontario Hydro provides group life insurance and health care benefits to its retired employees and, in certain cases, their surviving spouses and unmarried dependents. The cost of providing the group life insurance and health care benefits is charged to operations as the benefits are paid. In 1993, the cost of providing these benefits was \$15 million (1992 – \$16 million).

**17. RESEARCH AND DEVELOPMENT**

In 1993, approximately \$129 million of research and development costs were charged to operations and \$42 million were capitalized (1992 – \$134 million and \$49 million, respectively).

**18. DENISON MINES LIMITED**

In April 1991, Ontario Hydro notified Denison Mines Limited (Denison), pursuant to the provisions in the contract, that the long-term uranium supply contract would be terminated effective January 1, 1993. In Denison's 1991 and 1992 base price statements for the cost of production of uranium supplied to Ontario Hydro, Denison included significant amounts for depreciation and other costs, which Denison claimed resulted from a revision to the estimated life of its Elliot Lake uranium mine as a consequence of the contract termination by Ontario Hydro and Denison's decision to close the mine. The position asserted by Denison would have resulted in substantial additional charges related to uranium deliveries in 1991 and 1992. Ontario Hydro rejected this position as not being in accordance with the provisions of the supply contract and the dispute was submitted to arbitration. The arbitration tribunal unanimously dismissed the majority of the over \$350 million claim by Denison against Ontario Hydro and requires Ontario Hydro to pay approximately \$31 million, plus interest, related to Denison's severance payments and post-employment benefits. The amount payable to Denison has been provided for as part of the corporate restructuring charge and writeoffs against net income in 1993 consistent with the treatment of other amounts relating to the cancellation of the long-term uranium supply contracts.

**19. COMPARATIVE FIGURES**

Certain of the 1992 comparative figures in the financial statements have been reclassified to conform with the 1993 financial statement presentation.



**FIVE-YEAR SUMMARY OF FINANCIAL AND OPERATING STATISTICS** *millions of dollars*

<b>Revenues</b>	1993	1992	1991	1990	1989
Primary power and energy					
Municipal utilities	5,721	5,281	4,873	4,373	4,209
Rural retail customers	1,641	1,568	1,397	1,297	1,256
Direct industrial customers	873	863	811	792	790
	8,235	7,712	7,081	6,462	6,255
Secondary power and energy	128	56	62	22	91
	8,363	7,768	7,143	6,484	6,346
<b>Costs</b>					
Operation, maintenance and administration	2,060	2,246	2,037	1,927	1,534
Fuel used for electric generation	911	1,137	1,122	1,020	1,133
Power purchased	260	186	151	477	230
Provincial government levies	286	270	252	235	177
Depreciation	1,506	1,198	1,136	908	845
	5,023	5,037	4,698	4,567	3,919
<b>Income before financing charges</b>	3,340	2,731	2,445	1,917	2,427
<b>Financing charges</b>					
Gross interest	3,849	3,782	3,586	3,204	3,016
Capitalized interest	(453)	(1,231)	(1,194)	(1,318)	(1,175)
Investment income	(74)	(119)	(158)	(83)	(144)
Foreign exchange	8	(13)	7	(15)	31
	3,330	2,419	2,241	1,788	1,728
<b>Income before restructuring charge</b>	10	312	204	129	699
Corporate restructuring charge and writeoffs	3,614	—	—	—	—
<b>Net income (loss)</b>	(3,604)	312	204	129	699
<b>Financial position</b>					
Total assets	44,706	46,671	43,244	39,373	36,277
Fixed assets	40,740	40,690	38,170	35,139	32,362
Long-term debt <sup>1</sup>	33,685	34,034	32,160	29,378	26,802
Equity	3,325	6,931	6,619	6,416	6,287
<b>Cash flows</b>					
Cash provided from operations	1,332	1,691	1,381	754	1,705
Cash provided from financing	448	1,811	2,748	2,889	1,330
Cash used for investment in fixed assets	1,871	3,375	3,356	3,592	2,992
Investment in fixed assets	2,296	3,527	3,934	3,544	3,095
<b>Financial indicators</b>					
Interest coverage (operating income) <sup>2</sup>	1.00	1.09	1.06	1.04	1.24
Interest coverage (net loss) <sup>2</sup>	0.04	—	—	—	—
Debt ratio <sup>3</sup>	0.918	0.841	0.838	0.829	0.817

THE NEW ONTARIO HYDRO

	1993	1992	1991	1990	1989
<b>Primary energy sales<sup>4</sup></b> <i>millions of kilowatt-hours</i>					
Municipal utilities	92,044	91,317	93,623	92,116	93,715
Rural retail customers	18,512	18,938	18,988	19,444	19,767
Direct industrial customers	17,221	18,094	18,353	19,315	20,491
	127,777	128,349	130,964	130,875	133,973
<b>Secondary energy sales<sup>4</sup></b> <i>millions of kilowatt-hours</i>					
	4,807	1,896	2,123	577	2,292
<b>Energy and demand</b>					
Installed dependable peak capacity <i>megawatts<sup>5</sup></i>	33,793	32,231	32,333	31,350	30,271
December primary peak demand <i>megawatts</i>	20,506	21,339	22,933	21,785	23,630
Primary energy made available <i>millions of kilowatt-hours<sup>6</sup></i>	133,769	134,376	136,966	136,744	140,770
<b>Number of primary customers<sup>4</sup></b>					
Municipal utilities	309	311	311	314	315
Rural retail customers	944,622	940,617	925,641	918,368	894,485
Direct industrial customers	104	107	109	119	116
<b>Average revenue<sup>4</sup></b> <i>in cents per kilowatt-hour of total energy sales</i>					
Primary power and energy					
Municipal utilities	6.216	5.783	5.205	4.747	4.491
Rural retail customers	9.265	8.884	7.883	7.352	6.801
Direct industrial customers	5.069	4.770	4.419	4.100	3.855
All primary customers combined	6.485	6.070	5.459	5.024	4.715
Secondary power and energy	2.663	2.954	2.920	3.813	3.970
All classifications combined	6.346	6.024	5.419	5.001	4.702
<b>Average rate increases</b> <i>expressed as a percent</i>					
Municipal utilities	8.2	11.8	8.7	6.1	5.0
Rural retail customers	6.5	11.8	8.7	5.3	5.9
Direct industrial customers	8.2	11.8	7.8	5.6	6.0
All primary customers combined	7.9	11.8	8.6	5.9	5.3
<b>Average cost<sup>4,7</sup></b> <i>in cents per kilowatt-hour of energy generated</i>					
<b>Hydroelectric</b>					
Operation, maintenance and administration	.277	.280	.299	.271	.275
Water rentals	.330	.317	.338	.303	.287
Depreciation, debt guarantee fee and financing charges	.488	.454	.424	.373	.389
	1.095	1.051	1.061	.947	.951
<b>Nuclear</b>					
Operation, maintenance and administration	1.017	1.229	1.033	1.100	.739
Uranium	.514	.515	.502	.490	.458
Depreciation, debt guarantee fee and financing charges	3.910	3.080	2.756	2.631	2.241
	5.441	4.824	4.291	4.221	3.438

	1993	1992	1991	1990	1989
<b>Fossil</b>					
Operation, maintenance and administration	1.303	.960	.839	.899	.600
Coal, gas and oil	2.515	2.426	2.388	2.479	2.217
Depreciation, debt guarantee fee and financing charges	3.011	1.645	1.489	1.274	.931
	6.829	5.031	4.716	4.652	3.748

**Average number of employees**

Regular	26,442	28,835	28,396	26,821	25,147
Non-regular <sup>8</sup>	3,331	6,004	7,309	9,653	8,929

1. Long-term debt includes long-term debt payable within one year.
2. Interest coverage represents net income plus interest on bonds, notes, and other debt divided by interest on bonds, notes and other debt.
3. Debt ratio represents debt (bonds and notes payable, short-term notes payable, other long-term debt, unamortized option premiums, accrued fixed asset removal and used nuclear fuel disposal costs and bank indebtedness less unamortized foreign exchange gains and losses) divided by debt plus equity.
4. Figures for 1993 are preliminary.
5. Installed dependable peak capacity represents the net output power supplied by all generating units, and includes non-operating reserve facilities: 1993–2,686 MW; 1992–1,554 MW; 1991–1,546 MW; 1990–1,551 MW; and 1989–2,109 MW. Also included are net firm power purchase contracts.
6. Primary energy made available represents primary energy sales plus transmission losses and energy used for heavy water production and generation projects.
7. Average cost per kilowatt-hour represents the costs attributable to generation but excludes the costs related to transmission, distribution and corporate administrative activities. These figures reflect the historical accounting costs of operating facilities and the actual energy generated by these facilities during the year.
8. The majority of non-regular staff are construction trades persons.

**CUSTOMERS SERVED BY ONTARIO HYDRO AND ASSOCIATED MUNICIPAL UTILITIES**

	1993 <sup>1</sup>	1992	1991	1990	1989
<b>Total number of customers</b> <i>in thousands</i>					
Residential	3,207	3,205	3,163	3,129	3,064
Farm	103	104	105	105	105
Commercial and industrial	431	430	428	420	408
	3,741	3,739	3,696	3,654	3,577

**Average annual use** *in kilowatt-hours per customer*

Residential	11,000	11,024	11,581	11,668	11,856
Farm	23,564	23,496	23,945	23,945	24,762
Commercial and industrial	198,000	201,112	205,982	212,193	225,103

**Average revenue<sup>2</sup>** *in cents per kilowatt-hour*

Residential	8.69	8.12	7.23	6.68	6.25
Farm	9.02	8.19	7.34	6.80	6.44
Commercial and industrial	6.75	6.31	5.70	5.22	4.88
All customers	7.35	6.86	6.16	5.67	5.29

1. Figures for 1993 are preliminary.
2. Includes rural rate assistance.



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Vice-Chairman, Board  
of Directors  
Dean, Faculty of  
Engineering Science  
University of Western  
Ontario



DR. O. ALLAN  
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President and Chief  
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Ontario Hydro



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Executive Officer,  
Ontario Hydro

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ASHLEY >  
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University of Toronto



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CUMMINGS >  
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Canadian Union  
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Deputy Minister  
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and Energy  
(Non-voting Member)



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Executive Officer,  
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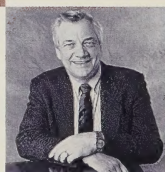
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**VICE-CHAIRMAN**  
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Dr. O. Allan Kupcis

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Dr. O. Allan Kupcis  
(*acting*)  
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Secretary

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Affairs Function

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Cassidy, M.  
Cummings, K.C.  
Harvey, D.  
McCaig, D.

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Cassidy, M.  
Etherington, W.  
McVey, E.  
Strong, M.F.  
Wallace, D.M.

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McVey, E.  
Runnalls, O.J.C.  
Sawchuk, A.  
Strong, M.F.  
Wallace, D.M.

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Brooks, D.B.  
Kupcis, O.A.  
Mathur, R.M.  
McCaig, D.  
McVey, E.

**TRANSACTIONS REVIEW  
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Cassidy, M.  
Hurley, A.M.  
Kerr, D.W.  
Kupcis, O.A.  
Mathur, R.M.  
Noonan, A.A.  
Runnalls, O.J.C.  
Sarlos, A.  
Strong, M.F.

**SOCIAL RESPONSIBILITY**  
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Brooks, D.B.  
Cummings, K.C.  
Harvey, D.  
McCaig, D.  
Noonan, A.A.

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Hinds, J.S.  
Kupcis, O.A.  
Mathur, R.M.  
Sarlos, A.  
Sawchuk, A.  
Wallace, D.M.

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FUND INVESTMENT**  
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Cummings, K.C.  
Hinds, J.S.  
Kerr, D.W.  
Kupcis, O.A.  
Runnalls, O.J.C.  
Strong, M.F.

**ENVIRONMENT/  
HEALTH & SAFETY**  
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Brooks, D.B.  
Cummings, K.C.  
Etherington, W.  
Harvey, D.

**NUCLEAR SAFETY REVIEW**  
Runnalls, O.J.C. &  
Hurley, A.M. –  
(*Alternate Chairs*)  
Ashley, M.J.  
Beck, N.  
Brooks, D.B.  
Cummings, K.C.  
Etherington, W.  
Harvey, D.  
Kupcis, O.A.  
Mathur, R.M.  
McCaig, D.  
McVey, E.

*Note: Where the Chairman  
and President are not formal  
members of a Committee,  
they shall be deemed ex offi-  
cio members*

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